Argumentative Analogy versus Figurative Analogy

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As argumentative analogy or simply **analogism (ἀναλογισμός)**, one calls the comparison through inductive reasoning of at least one object to another comparable object. If one has two objects A and B and knows that the object A' is comparable to A, then it should be expected that B is comparable with B' in what was compared among A and A'. It is opposed to deductive reasoning, where a general premise is formulated at first, which is then proved on individual premises. When using an inductive method, one first compares individual phenomena and tries to formulate a general sentence hereafter.

Deductive reasoning (syllogism):

All Greeks are humans. (universal, affirmative)
Socrates is a Greek. (particuliar, affirmative)
Socrates is a human. Conclusio of the two premises

Inductive reasoning (analogism):

Socrates is a human. (particuliar, affirmative)
Plato is a human. (particuliar, affirmative)
Aristotle is a human. (particuliar, affirmative)
All Greeks are human. (universal, affirmative)
→ The universal proposition is valid until at least one Greek is found who is not human (falsification).

Inductive reasoning cannot be proved, it is always assumed to be legit, until at least one illegitimate example is found to falsify the proposition. This goes back to the ethical philosopher Karl Popper.
In the example above, all the people who are mentioned have at least one thing in common, they are Greeks, so they can be compared through their common characteristic.
We can even found more characteristics, such as all of them are philosophers. Thus, one can also draw the conclusion "All philosophers are human."

We find this form of inductive reasoning very often in scientific hypothesis. If one writes a scientific paper on the proposition "People in country XX tend to vote for radical parties in rural areas", then one first has to look at all rural areas and their election results in the country XX. Since the proposition is not universal, but only probablistic, exeptions are allowed, since 1) not all people vote for the same party, so the universal proposition can be easily crushed, 2) there might be one or two constituencies, where this trend is not the case at all.
However, one can also easily make universal propositions in scientific papers, for instance when a biologist claims that a certain characteristic has to be fulfilled to categorize specific animals in one group.

A figurative analogy or simply called **analogia (*ἀναλογία*)** does not follow the condition that A' has to be similar than A. Instead, we can take C and compare it with A. As a result, we might conclude that D has to be similar to B then. Anyways, since an analogia is not strictly formal, one can also take A and compare it with C without the need to make a conclusion of a thing B and D. An analogia has to be differentiated from a univocity and equivocity. An analogia mainly describes a transfer from a thing to another without changing its meaning.
There are three forms: 1) we know the things which are compared, 2) we just know a bit about the thing, but can't grasp anything, 3) we have no real knowledge about the thing which is compared.

To point three: using the sun as an analogy for the divine. We do not know God, we never saw him and we have no first hand testimony of God himself. However, in antiquity, God was seen equally to the sun (see Plato). Thus, the warm rays of the sun might be compared to feeling the blessing of God. Though the sun and God might be two different things, the meaning is not changed, since both represent the highest principle of life in the universe.

To point two: using the heart as an analogy for love. We know the existence of our heart and we know the existence of love through our feeelings, but every individual definetly has its own feeling and understanding of love. If we talk about love, everybody can tell something about it (even small children who love their parents), but the generalisation goes back to an individual experience. The meaning of heart and love is not changed, since we feel symptoms of love in our heart and thus we easily might connect this comparison.

To point one: using the society of an animal colony as analogy to our human society. Both things are known and might be transfered easily.

Agler points out that "Many analogies are used to better explain a difficult, obscure, or abstract concept in terms of something that is easier to understand, less mysterious, and concrete". Juthe points out that "Reasoning by analogy is as reasoning in general not always in the form of an argument; mostly analogical reasoning is about solving problems, describing something, learning or explaining things by extending our thought from things we do understand to things we do not, at the time, comprehend". (p.3)
Since analogism belongs to inductive reasoning, there is always the danger that though both premises are true, the conclusion might be false anyways. (Wilholt, § 440)

Finally, it has to be pointed out that the term analogy is debated very much in scientific papers. As Brown points out: "Conceptions of analogy vary from discipline to discipline. Whether one believes that an analogy can 'prove' a point in an 'argument' depends on whether one understands the words prove and argument in the logician's sense or in the rhetorician's sense, as well as depending on one's understanding of analogy itself. Freshman English handbooks appear to be assuming a definition similar to what Speech Communication texts say about figurative analogy. [...] The degree of esteem in which analogy in any of its traditions is held varies from discipline to discipline." (p. 161)
Concerning the term analogy Brown states: "Analogy is often explained as a special kind of comparison (or similarity) between two objects (events, ideas, classes of objects, etc.) such that the possession in common of one (or more) characteristic (property, attribute, etc.) by both objects is believed to imply that the two objects probably have some other characteristic(s) in common. For instance, if two automobiles are in the same price range, one might infer by analogy that they are of comparable quality (or even the same color). Although usually not mentioned in such explanations, differences would seem to be as susceptible as similarities to analogical treatment." (p. 162). This kind of analogy, he calls predictive analogy. If four objects instead of two objects are comapred, then he talks of proportional analogy.
We have seen examples for the two sets above in figurative examples, such as the sun might be an analogy for the divine, while the four set are rather argumentative. However, as I showed above, out of figurative analogies one might also quickly make an argumentative four set scheme:

The sun (A) represents the Good (B),
So the moon (C) must represent the Bad (D).

D is just an assumption of C, through the figurative analogy of A and B. Here, one might argue whether the sentence above is merely a extended argument of the figurative analogy, or an independent argument by analogy. As a fact, we can say here that we are not really doing induction, since we have not observed anything. We never saw the bad of the moon, as the assumption is just done out of the figure of the figurative analogy. An argumentative analogy however tries to prove something, as shown above it can be the summary of many empirical observations, such as the fact that the Greeks Socrates, Plato and Aristotle are philosophers, so one might take the argumenative conclusion that all Greeks are philosophers. However, inductive arguments can be smashed easily, while deductive arguments are stronger.

To better understand the discourse of Brown it is also worth to mention that he says "For me, reasoning is something that goes on in people's minds (though much else that is not reasoning also goes on there), and argument is a communication of reasoning - an effort to get somebody else to reason the same way you do. Logic is not a set of instructions, or even guidelines, that people apply in order to reason. Nor is it the kind of direct representation of a behavioral or neurological process that a cognitive psychologist might attempt to reconstruct. Logic is a constructed model that attempts to account for some or all of reasoning and argument, […]" (p.162).

To put it in a nutshell an analogism is always formal and follows inductive logic, while an analogia is always based on informal figures (which might be tried to be formalised though). The analogia just is a colloquial try to transfer the meaning of a graspable thing on an abstract thing, without changing anything, while the analogism is the try to describe abstract things through observing easier things, while putting the easier things in relation with the abstract things (e.g. if this car is expensive and good in quality [GRASPABLE], then any other car which is expensive must be good in quality as well. [ABSTRACT]).

Literature:

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