

TWO WAYS OF THINKING IN GREEK AND ARABIC PHILOSOPHY

There was only one Greek school of philosophy which survived the decline of antiquity: that of the Neoplatonist philosophers. Their activity was continued first by the members of the Baghdad school of philosophers and later by the schoolmen of the European Middle Ages. It was the Neoplatonic school tradition which preserved the works of Plato and Aristotle — in Neoplatonic interpretation.

The Neoplatonic theory of demonstration — first documented in the *Elementatio Theologica* of Proclus — has been based on the famous *Tabula Porphyriana* which runs as follows:

substantia	
materialis	immaterialis
	corpus
animatum	inanimatum
	vivens
sensitivum	insensitivum
	animal
rationale	irrationale
	homo

This *Tabula* contains a hierarchic order of definitions and demonstrative syllogisms: body is a material substance, etc; and

every material thing is a substance
every body is a material thing
 every body is a substance

The hierarchic order of sciences established by Ibn Sina was founded on this theory of demonstration. His system — the essentials of which are comprised in the table below — consists of several degrees of higher and inferior disciplines.

metaphysics							
physics				mathematics			
medicine	geography	geometry	arithmetics				
psychology	history	etc	etc	astronomy	optics	harmony	music

The higher sciences (metaphysics, physics, mathematics) are the theoretical ones, the inferior disciplines are the practical ones.

The structure of the human soul is parallel to this system of sciences. The vegetative part of the soul is responsible for maintaining the life, the animal soul collects the impressions through sense perception. They are generalized by the practical intellect which is the lower part of the rational soul. We attain the first principles of the practical sciences by way of this generalization or by deduction from a hierarchically superordinate scienc. In this unified system of sciences a deduced thesis in a higher science becomes first principle for a subordinate science. The consequence of this theory is that the human mind generalizing

the sense impressions sets up a lot of hierarchically ordered Tabulae Porphyrianae which form hundreds of series and sequences leading from the simplest and lowest knowledge of the inferior sciences to the first principles of the highest sciences converging on the first axiom of the metaphysics. The human mind moves *forward or backward step by step* along the concepts contained in the Tabulae Porphyrianae

The first axiom of metaphysics with the first definitions cannot be proved logically in this system. Their knowledge is of divine origin. The psychology of Alexandrus Aphrodisiens, the second century Greek philosopher says that the spheres of the heavenly regions are moved by divine intellects, the lowest of them is the intellect of the moon sphere. The human mind is originally empty, so it is a potential intellect. The potential intellect is furnished by the intellect of the moon sphere with the first forms (that is: with the knowledge of the first causes, because the meaning of *form* is "formal cause"), so it becomes actual intellect. The intellect of the moon sphere is called, because of this activity, the *active intellect*.

Thus the human mind obtains the ultimate truth without discursive thinking or long reflection by divine inspiration, that is to say by intuition.

Ibn Sina and the Arab philosophers taught that every normal scientist can get in contact with the Active Intellect, nevertheless a lot of them never attain the happiness of being inspired by divine wisdom. On the other hand, there are many believers who improving their moral habits can remain in continuous contact with the divine world and get an intuitive knowledge — without learning — of the most important things, that is of God and metaphysics.

The Greek and Arab philosophers recognized the symmetry and asymmetry of intuitive and discursive thinking: they can replace each other in certain fields, but they cannot replace one another in the domain of the first principles.

They became aware of the problem of discursive thinking and intuition and describing them — in terms of Aristotle's philosophy — they gave an answer to the question HOW, but they could not give an answer to the question WHY. It is the modern brain research which attempts to find an explanation to it.

At the same time it is not allowed in logic to infer backward. An "if..., then ..." conditional is not reversible. Consequently, deductive reasoning can only move from the first general principles to the more individual and practical deduced knowledge. Reasoning by deduction is an asymmetric mental operation.

The syllogistic reasoning along a Tabula Porphyriana is possible moving upward and downward equally. This is the famous DEDUCTIO A PRIORIBUS ET A POSTERIORIBUS of the scholastic logic. The theory of demonstration based on the Tabula Porphyriana permitted a symmetric reasoning in the theoretical sciences which was prohibited by Plato and Aristotle (and contemporary logic as well).