

4. “*Aurea mediocritas*”

The concepts of measure, measurement and moderation in Presocratic philosophy

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Abstract:

An important moral tradition was formed in ancient Greece, starting from the early 6th century BC and extending approximately to the first half of the 5th century BC. This social morality which values virtue above pleasure (ἡδονή) and ordains the observance of measure (μέτρον), namely the morality of prudence (σωφροσύνη), was shaped thanks to the orders of the Oracle of Delphi and the Seven Sages for self-restraint and avoidance of excess, but also thanks to the moral teaching of Presocratic philosophers and the legislation of wise and enlightened legislators, as it seems that the requirement for measure ensures the existence of polis (city) and makes it operating orderly and in a harmonic manner.

The purpose of this article is to show how the requirement for the measure was reflected in the theoretical thinking of Presocratic philosophers. The paper deals with the period, when the concepts of measure, measurement and moderation penetrated into the fields of ethics and political philosophy, fields that still have not acquired a more systematic form as it happens in the era of Plato, Aristotle and their descendants.

Keywords:

Presocratics; measure; measurement; moderation; calculation; virtue; prudence; restraint; pleasure; delight; welfare; nature; knowledge of nature

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Presocratic philosophy deals mostly with cosmology. Particularly the Presocratics searched for “causes and principles” –the prime universal principle (*αρχή*) and the unending changing of the *cosmos* (*γίγνεσθαι*). The first philosophers rejected the traditional mythologies about *cosmos* and focused on the study of nature (Lindberg, 1997; Veikos, 1988); they did not develop a systematic and methodical moral and political theory, although during the Presocratic era the concept of life (*βίος*) was evolved. Exemplary lifestyle has mainly to do with the knowledge of nature, which contributes greatly to the achievement of human domination over nature and thus leads to material prosperity (Bagionas, 1978).

Thales and Anaximander were the first philosophers who introduced the concept of life. Human beings are made of the same material as nature and, hence, welfare depends on the knowledge of nature (Nestle, 2010; Bagionas, 1978; Kalfas & Zographidis, 2013). Thales via his quotation “use moderation” («μέτρω χρόν») (DK 10 A 3 δ18) advises us to have moderation (*μέτρον*) in our lives, a proposal that probably has a double meaning. From one point of view, quote possibly means that we must avoid excesses in sociopolitical life, while on the other hand, it could mean that measure which regulates nature is the pattern that should be applied to human life in order to achieve welfare and happiness.

According to Anaximander, the universe is a system of balance of opposing forces, where it is obvious that measure and balance are the necessary prerequisites for cosmic justice. The contrasting elements, emanating from the *Apeiron* (*Ἄπειρον*), fight each other without ever any of them outweighing completely the other elements, as the *Apeiron*, the prime principle of *cosmos*, ensures the cosmic order and justice (DK 12 A 9, 16).

Anaximander seems to convey the concepts of fairness and justice of political life in the cosmic universe. Everything is made on the basis of the order of time. Time (*χρόνος*) is the judge that punishes greed (the circumvention of measure) and restores fairness. Justice (*δίκη*), according to the order of time defines the limits of all things and at the same time reveals¹ the process of genesis and decay of everything, namely it reveals the course of the universe (Michailidis, 1984). In this context, humans perceive the limits and the measures of the cosmic universe and, thus, they become able to adapt their lives to them.

¹ Similarly, Thales considers that time reveals everything. See Diogenes Laertius (1925). *Lives of Eminent Philosophers*. Vol. I. English Translation by R.D. Hicks, ‘The Loeb Classical Library’. Cambridge, Mass./ London: Harvard University Press/W. Heinemann, p. 37, where Thales states that “The wisest, time, for it brings everything to light”.

Pythagoras, the founder of Pythagoreanism, suggests, according to the tradition, the three types of human life, concerning as optimal the life of philosophy, namely the type of life which is engaged with the contemplation of nature (Cicero, *Tusc.* V 3.8; Diogenes Laertius, *Proem*).

It is very likely that some symbolic aphorisms (*ακούσματα*) –which the initiates of Pythagoreanism were probably obligated to memorise and obey as theoretical and practical instructions (Kirk, Raven & Schofield, 2001⁴, p. 236)– belong to Pythagoras. Some of them, such as not raising whatever falls from the table (during dinner time) to get used to eating in moderation (DK 58 C 3) or not surpassing the limits of the scale, namely not being greedy or not eating your heart, i.e. not allowing your worries to torture you (DK 58 C 6) are clear instructions related to measuring and restraint towards pleasures and, generally, towards things that people desire. Perhaps these practical instructions also suggest that worries should be measured correctly, namely giving them the right dimensions and not extreme dimensions which may wound the human soul.

But the crucial pillar of Pythagorean philosophy is the mathematization of the world, the application of mathematics in the cosmic universe (Kahn, 2005)² and it becomes evident that the fundamental doctrine of Pythagoreanism is that the whole world is harmony and numbers. Therefore, one who knows and also is able to view the mathematical order of the world is participating in the optimal life.

The cosmic order has a geometric and numerical base and all beings imitate numbers. The world is governed by mathematical order and, therefore, in the context of *polis*, we assume that Pythagoras probably suggests that *polis* should be governed by all those who are aware of the mathematical order of *cosmos* because it is through them that social harmony will be ensured eventually (Bagionas, 1978, p. 46).

Pythagoras proposes the study of nature, which has mathematical and geometric structure and, thus, it is clear that the concepts of measure and measurement are necessary for one to understand the *cosmos*. Although knowledge of mathematics and geometry –the sciences of measure and calculation– is obviously attached to ethics and politics, citizens have not developed a moral and political.

Another Pythagorean philosopher and mathematician, Archytas of Tarentum, used the terms *logismos* (*λογισμός*) and *logistika* (*λογιστικά*) in his philosophy. *Logismos* is indispensable for human beings for the acquisition of knowledge and also has a sociopolitical character because when people have the ability of *logismos*, rich citizens perform their obligation to help poor citizens and also the poor exploit their right to receive the assistance of the rich. In this way, greed is dissolved, equality and justice are restored and harmony is established in *polis* (DK 47 B 3)³. Regarding the concept of

² C.H. Kahn attributes basic positions of Pythagorism to Pythagoras himself.

³ In this fragment and especially in lines 1-6, Archytas refers to the process by which man approximates knowledge through *logismos*, while in lines 7-17 emphasizes to the sociopolitical dimension of *logismo*

logistika, it seems to be the science that transcends even geometry (DK 47 B 4). *Logismos* is probably the computational power of human reasoning (*Λόγος*), which is able to count and calculate, and enables the majority of citizens to participate in political life in such a way that ensures the unity of *polis*, while *logistika* may be the science that offers us the knowledge of the world through the deeper understanding of numbers, proportions and relationships that regulate numbers⁴.

Xenophanes of Colophon focused his philosophical thought on the subjects of God's substance and on the relationship between God and *cosmos*, which, as noted by W. Nestle, had not been notably addressed by the Milesian philosophers (Nestle, 2010, p. 133) and came to express the certainty that Gods do not regulate everything in relation to the world and human life. This position is very important, as it means that man acquires a degree of freedom and action so that he himself becomes able to form and regulate his own life.

According to A. Kelesidou (1994, p. 28), the first seeds of moral philosophy of the Presocratics are found in Xenophanes (*Elegy* 1, 17-24), where the Colophonian philosopher, focusing on the social institution of the symposium, considers that the combination of pleasure and virtue – with the contribution of measurement– should guide human behavior. Xenophanes, therefore, introduces the measure as a prerequisite for the attainment of virtue. Enjoyment and pleasure are legitimate, they are not characterised as *hybris* (*ὕβρις*) when they occur reasonably and in moderation. *Hybris* seems to be related to body pleasures occurred in excess.

In addition, it would be an omission not to take into account Xenophanes' criticism on the luxurious and full of opulence life of his compatriots (DK 21 B 3 = Athénaios, *Deipnosophistae* XII), which is clearly indicative of Colophonian philosopher's intolerance of exaggeration on human pleasures and therefore implicitly, at least, seems to prefer the virtues of the measure, prudence and restraint.

The concept of measure seems to be of great importance to Heraclitus' philosophical thought. The Ephesian philosopher perceives *cosmos* as a continuous flux, a perpetual change of all things governed by *nomoteleia* (*νομοτέλεια*), a world characterised by harmony as a unity of the opposites (Heracl. DK 22 B 10). *Logos* (*Λόγος*)⁵ is the law that governs and rules the world, it is the rate (measure) at which the eternal flashing fire (*ἀείζωνον πῦρ*) of Heraclitus creates the cosmic

⁴For the concepts of *logismos* and *logistika* see C.A. Huffman (2005). *Archytas of Tarentum. Pythagorean, Philosopher and Mathematician King*. Cambridge: Cambridge University Press, pp. 204, 235-6; see, also, G.I. Papageorgakis (2015). "*Logistika*" of Archytas and Plato's "*metritiki*": *The art of measurement in ethics and politics*. Unpublished Thesis. Ioannina: University of Ioannina, pp. 34-50.

⁵ For the concept of Logos in Heraclitus's thought see, for example, G.S. Kirk – J.E. Raven – M. Schofield (20014). *The Presocratic Philosophers*. (D. Kourtovik, Trans.). Athens: National Bank of Greece Cultural Foundation (MIET), pp. 195-196; G.S. Kirk (1975). *Heraclitus: The Cosmic Fragments*. London: Syndics of the Cambridge University Press, pp. 38-39, 70, passim; E.L. Minar (1939). *The logos of Heraclitus*. *Classical Philology*, 34 (4), pp. 323-341; T.M. Robinson (2013). *Heraclitus and Logos – Again*. *Σχολή*, 7, 276-283; W.K.C. Guthrie (19882). *The Greek Philosophers: From Thales to Aristotle*. (A. Sakellariou, Trans.). Athens: Dem. N. Papademas Publishing, .pp. 51-52

universe, the rate at which the opposite elements balance and become one with harmony (DK 22 B 30; DK 22 B 31). Measure (*μέτρον*) appears to have a dominant role in Heraclitean *cosmos* and governs everything (Kirk, 1975, pp. 38-39)⁶ as not even the sun can exceed the measures because the Furies will find him and bring him back to his original position (DK 22 B 94). Therefore, it is reasonable for one to presume that cosmic harmony and orderliness cannot exist in the absence of measure and balance.

Heraclitus considers that prudence (*σωφροσύνη*), the virtue which we can say is associated with the measure, is the highest human virtue. He also suggests that wisdom is knowledge and action according to nature (DK 22 B 112), namely knowledge and action are in accordance with the cosmic *Logos* (*Λόγος*) that apparently has to do with the knowledge of measure, the limits and the regularities that govern nature. Therefore, the Ephesian philosopher suggests that the wisest thing one can learn is the knowledge of cosmic *Logos* (DK 22 B 41; Nestle, 2010, p. 145), which is a difficult and inaccessible knowledge for the “many” (DK 22 B 2). The wise person who probably possesses the knowledge of the cosmic becoming (*γίγνεσθαι*), seems to be the only one who should exercise power.

For Heraclitus, ethics and politics seem to be attached on the basis of knowledge of the cosmic measure, because it is *conditio sine qua non* for one to act as an ethical person and exercise political power at the same time.

On their cosmological aspects, Heraclitus and Empedocles might be marshalled in one line (Plat., *Theaetetus* 152 e), as, also in the case of Empedocles, despite the perpetual change, the universe is ruled by *nomoteleia* and measure. Empedocles in his book *On nature* (*Περί Φύσεως*) explicates his theory about physical world, where roots (*ρίζωματα*), the four ultimate elements which make up all the structures in the world –fire, air, water and earth– are engaged in a perpetual circular mixing and separation process due to the driving forces of Love (*Φιλότητα*) and Strife (*Νείκος*). An endless process which occurs in several stages, between the absolute sovereignty of Love and the absolute sovereignty of Strife (DK 31 B 17 and 26).

Empedocles is concerned with the acquisition of the knowledge of nature but also wants to achieve the domination over nature, because he attempts to understand the forces that govern the world for the benefit of people (DK 31 B 111). So, as Empedocles infers, it seems possible for a man to improve his life using the knowledge of the way that nature functions.

Democritus, a contemporary of Socrates and Plato and rapporteur of the atomic theory, is the philosopher who crowns the Presocratic thought. He develops an important moral theory (Nestle, 2010, p. 289; Kirk, Raven & Schofield, 2001⁴, p. 428)⁷, which is based on the concepts of prudence

⁶ G.S. Kirk surveys the rescued fragments of Heraclitus and considers that, in the majority of them, the basic meaning of *Logos* –and statistically the most frequent– is measure (*μέτρον*). See also, G.S. Kirk (1975). *Heraclitus: The Cosmic Fragments*, pp. 38-39.

⁷ G.S. Kirk, J.E. Raven & M. Schofield note that more than four fifths of Democritus unchanged rescued fragments deal with moral issues.

(*φρόνησις*) and measurement. More specifically, Democritus believes that pleasure (*ἡδονή-τέρψις*) is necessary to man, as he states that “life without celebrating is like a long journey without rest” (DK 68 B 230) and proposes tranquillity (*εὐθυμίη*) as the highest moral aim (DK 68 B 189 and 191). Tranquillity can be attained by leading a specific way of life, regulated by human prudence. When a man is able to count pleasures so as to experience them in a symmetrical way, without exaggeration or lack, then he usually achieves inner peace (DK 68 B 191). Pleasures should be experienced in moderation because the absence of measure may lead to unpleasant effects and harm our health (DK 68 B 233 and 234). In addition, the contribution of Democritus to moral philosophy is very important, as he introduces the concept of *kairos* (*καιρός*), namely the right or opportune moment, as a necessary condition for the proper enjoyment of pleasures. The enjoyment of pleasures at the wrong moment (and probably the enjoyment of pleasures in a wrong duration) ultimately leads to sorrow, as these pleasures do not usually last long and are accompanied by unpleasant situations (DK 68 B 71 and 235).

Delight (*τέρψις*) seems to be necessary to human life (DK 68 B 4 and 188) because tranquility (also called *εὐεστῶ*) (DK 68 B 4), the highest human good, has to do with harmony and cheerfulness of the human soul that is based on the right selection of pleasures –specifically the good pleasures (DK 68 B 207)– and also on the moderation with which these pleasures are enjoyed (DK 68 B 191 and 286).

It is interesting to note that Democritus did not transfer strict causality (that characterises his physical theory) in the field of human morality. Freedom seems to be assigned to man to conquer the moral good. The enemy of mental peace, the harmonious state of the soul, is a chance, as it so happens in nature, where the enemy of cosmic harmony is randomness (Nestle, 2010, p. 290)⁸. The harmony of the world is based on *nomoteleia* and, correspondingly a harmonious mental state is achieved by prudence.

The Democritean prudence has to do with theory and action, with reasonable thinking and accurate speech, which are all closely connected with the performance of corresponding actions (DK 68 B 2). A wise man is the one who directs his life using prudence and does not rely on living on chance which is associated with unwillingness and immobility (DK 68 B 119 a). The existence of any form of unwillingness, in combination with attributing to chance an excessive value, implies the lack of prudence. Therefore, man cannot approach measure, so his soul will be characterised by disharmony and mental storm.

Epilogue

The innovation of Presocratic philosophy is in the transition from myth to reason, as the early Greek philosophers attempted to compose reality using human reasoning. Human reasoning –

⁸ W. Nestle brilliantly distinguishes the common point, the “bridge” that unites the fields of physics and ethics in Democritean thought.

clearly and directly related to the concepts of measure, measurement and calculation– constitutes a computational tool that interprets, decodes and apprehends the world. Due to this fact, it is necessary for human beings to develop the computational dimension of mind (which as previously mentioned, it is associated with the concepts of measurement and measure). It seems that the Presocratics understood the necessity of measurement and suggested reason and measure for the understanding of the world.

We should note that Milesian philosophers' perception of hylozoism whereby materials are able to change forms, led man to be considered as part of nature and, therefore, the knowledge of nature becomes the pattern of proper action and also releases him from irrational or divine forces. The man is now responsible for himself and no longer depends on the mood of Gods or mythical monsters, neither does he depends on his fate, as he has the opportunity to shape his own life and dominate his destiny. This is a crucial element that characterises Presocratic thought, namely the acknowledgement that people could be responsible for their lives by using human reason to acquire theoretical knowledge of nature and then use it to act in the right way. The Presocratics recognised that reason is very close to the concepts of measure, measurement and calculation (and also depends on them), so they attempted to use them in their theories. In addition, they suggested virtues like prudence and restraint which are also strictly connected with one's ability to measure and calculate human pleasures and pains.

In conclusion, it is clear that the Presocratics endeavoured to synthesise reality through reason and in order to achieve this, they used the concepts of measure, measurement and moderation. When something is subjected to measurement and calculation it is obvious that it acquires an objective character. So, we see that the concept of measure firstly had to do with the cosmological quests of the first philosophers and it has gradually entered the fields of moral⁹ and political philosophy. After the Presocratics, some brilliant members of the sophistic movement of the second half of the 5th century BC will be greatly concerned with the concept of measure-measurement, before handing over the baton to Socrates and mainly Plato and Aristotle who integrate this notion in their moral and political philosophy in a more systematic manner.

⁹ The moral teaching of the Presocratic philosophers is reflected in many ancient Greek texts and fragments. See, for example, Cleobulus, DK 10 α. 1 and 10; Solon., DK 10 β. 1 and 3; Thales, DK 10 δ. 18; Periander, DK 10 ζ. 7; Heraclitus, DK 22 B 29; Democritus, DK 68 B 40, 69, 70, 71, 72, 211 and 214. In addition, the contribution of poetry to shaping the ethic view of measure (moderation) and virtue seems to be very important as is observed on various passages such as i.e. Phocylides, fr. 12 (Diehl): "In many things the middle have the best; Be mine a middle station"; Pindar, *Isthmian*, VI 71: "he pursues with moderation in his thoughts and restrains with moderation"; Epicharmus, DK 23 B 44 α.

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