

Extrait du Rhuthmos

<http://rhuthmos.eu/spip.php?article1914>

Platonic Eurhythmmy (4th century BC) - part 3

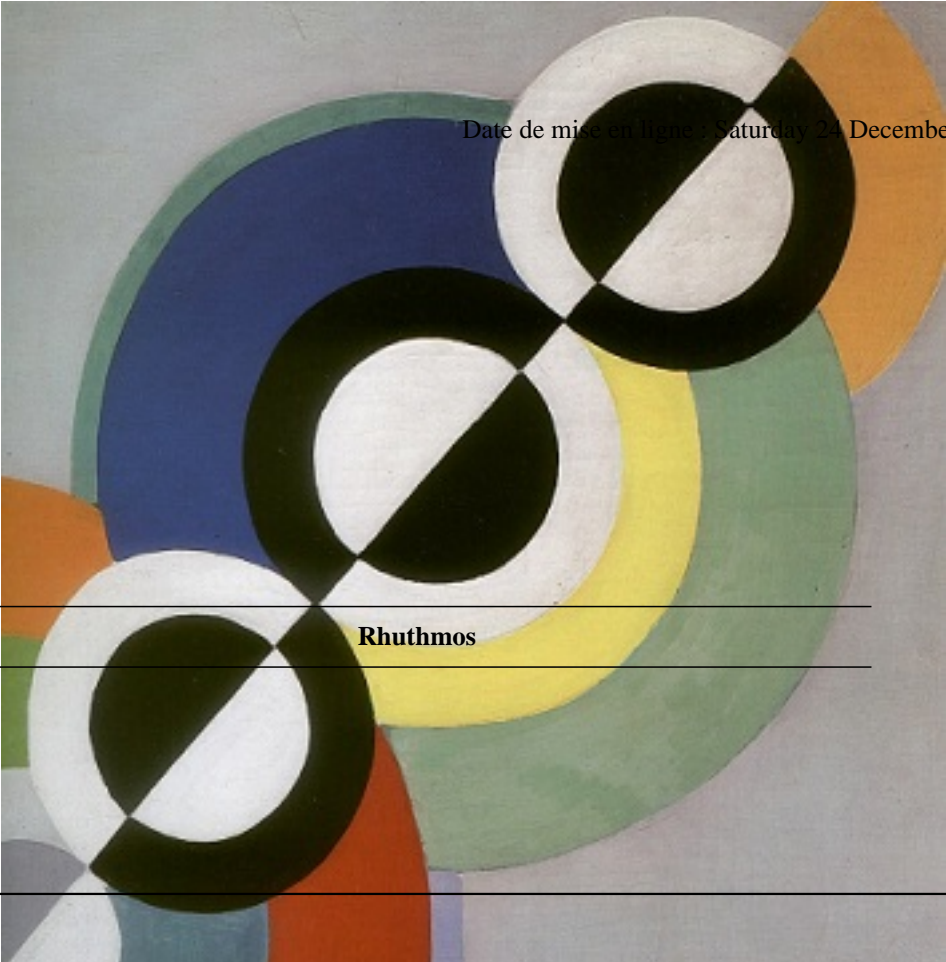
- Recherches

- Vers un nouveau paradigme scientifique ?

- Sur le concept de rythme

-

Date de mise en ligne : Saturday 24 December 2016



Rhuthmos

[Previous chapter](#)

Eurhythm as Mathematical Order - Philebus and Timaeus (bet. 361-347 BC)

To conclude this chapter, I would like to come back to a question we left open in the second section. We saw that the dialogues of the early and middle periods do not provide us with many clues on the role of mathematics in Plato's rhythm theory and therefore in his larger aesthetic, ethical and political conception of eurhythm.

Concerning the reference in *The Republic* to simple mathematical ratios imitated from the Pythagorean theory of harmony, we have noticed that specialists emphasize that ancient Greek music was neither composed nor played according to regular measure. Therefore empirical evidence seem to go against any Platonic use of number to define rhythm, at least in *The Republic*.

But this argument is maybe weaker than it seems. Actually new theories never reflect given common historical practices. On the contrary, as Bachelard convincingly showed already a long time ago, such theories are usually based on propositions that conflict with largely shared opinions. If ancient music and dance were not based on numbers, which is probably true, it does not imply that Plato could not imagine that they should be.

Fortunately, dialogues of Plato's late period are more specific on this subject. As we already saw in the previous chapter, in *The Philebus*, as in *The Republic*, Plato first defines rhythm in respect to harmony. Sound intervals ($\frac{1}{2}$ - $\frac{1}{4}$ - $\frac{1}{8}$ - $\frac{1}{16}$ - $\frac{1}{32}$ - $\frac{1}{64}$ - $\frac{1}{128}$ - $\frac{1}{256}$ - $\frac{1}{512}$ - $\frac{1}{1024}$ - $\frac{1}{2048}$ - $\frac{1}{4096}$ - $\frac{1}{8192}$ - $\frac{1}{16384}$ - $\frac{1}{32768}$ - $\frac{1}{65536}$ - $\frac{1}{131072}$ - $\frac{1}{262144}$ - $\frac{1}{524288}$ - $\frac{1}{1048576}$ - $\frac{1}{2097152}$ - $\frac{1}{4194304}$ - $\frac{1}{8388608}$ - $\frac{1}{16777216}$ - $\frac{1}{33554432}$ - $\frac{1}{67108864}$ - $\frac{1}{134217728}$ - $\frac{1}{268435456}$ - $\frac{1}{536870912}$ - $\frac{1}{1073741824}$ - $\frac{1}{2147483648}$ - $\frac{1}{4294967296}$ - $\frac{1}{8589934592}$ - $\frac{1}{17179869184}$ - $\frac{1}{34359738368}$ - $\frac{1}{68719476736}$ - $\frac{1}{137438953472}$ - $\frac{1}{274877906944}$ - $\frac{1}{549755813888}$ - $\frac{1}{1099511627776}$ - $\frac{1}{2199023255552}$ - $\frac{1}{4398046511104}$ - $\frac{1}{8796093022208}$ - $\frac{1}{17592186044416}$ - $\frac{1}{35184372088832}$ - $\frac{1}{70368744177664}$ - $\frac{1}{140737488355328}$ - $\frac{1}{281474976710656}$ - $\frac{1}{562949953421312}$ - $\frac{1}{1125899906842624}$ - $\frac{1}{2251799813685248}$ - $\frac{1}{4503599627370496}$ - $\frac{1}{9007199254740992}$ - $\frac{1}{18014398509481984}$ - $\frac{1}{36028797018963968}$ - $\frac{1}{72057594037927936}$ - $\frac{1}{144115188075855872}$ - $\frac{1}{288230376151711744}$ - $\frac{1}{576460752303423488}$ - $\frac{1}{1152921504606846976}$ - $\frac{1}{2305843009213693952}$ - $\frac{1}{4611686018427387904}$ - $\frac{1}{9223372036854775808}$ - $\frac{1}{18446744073709551616}$ - $\frac{1}{36893488147419103232}$ - $\frac{1}{73786976294838206464}$ - $\frac{1}{147573952589676412928}$ - $\frac{1}{295147905179352825856}$ - $\frac{1}{590295810358705651712}$ - $\frac{1}{1180591620717411303424}$ - $\frac{1}{2361183241434822606848}$ - $\frac{1}{4722366482869645213696}$ - $\frac{1}{9444732965739290427392}$ - $\frac{1}{18889465931478580854784}$ - $\frac{1}{37778931862957161709568}$ - $\frac{1}{75557863725914323419136}$ - $\frac{1}{151115727451828646838272}$ - $\frac{1}{302231454903657293676544}$ - $\frac{1}{604462909807314587353088}$ - $\frac{1}{1208925819614629174706176}$ - $\frac{1}{2417851639229258349412352}$ - $\frac{1}{4835703278458516698824704}$ - $\frac{1}{9671406556917033397649408}$ - $\frac{1}{19342813113834066795298816}$ - $\frac{1}{38685626227668133590597632}$ - $\frac{1}{77371252455336267181195264}$ - $\frac{1}{154742504910672534362390528}$ - $\frac{1}{309485009821345068724781056}$ - $\frac{1}{618970019642690137449562112}$ - $\frac{1}{1237940039285380274899124224}$ - $\frac{1}{2475880078570760549798248448}$ - $\frac{1}{4951760157141521099596496896}$ - $\frac{1}{9903520314283042199192993792}$ - $\frac{1}{19807040628566084398385987584}$ - $\frac{1}{39614081257132168796771975168}$ - $\frac{1}{79228162514264337593543950336}$ - $\frac{1}{158456325028528675187087900672}$ - $\frac{1}{316912650057057350374175801344}$ - $\frac{1}{633825300114114700748351602688}$ - $\frac{1}{1267650600228229401496703205376}$ - $\frac{1}{2535301200456458802993406410752}$ - $\frac{1}{5070602400912917605986812821504}$ - $\frac{1}{10141204801825835211973625643008}$ - $\frac{1}{20282409603651670423947251286016}$ - $\frac{1}{40564819207303340847894502572032}$ - $\frac{1}{81129638414606681695789005144064}$ - $\frac{1}{162259276829213363391578010288128}$ - $\frac{1}{324518553658426726783156020576256}$ - $\frac{1}{649037107316853453566312041152512}$ - $\frac{1}{1298074214633706907132624082305024}$ - $\frac{1}{2596148429267413814265248164610048}$ - $\frac{1}{5192296858534827628530496329220096}$ - $\frac{1}{10384593717069655257060992658440192}$ - $\frac{1}{20769187434139310514121985316880384}$ - $\frac{1}{41538374868278621028243970633760768}$ - $\frac{1}{83076749736557242056487941267521536}$ - $\frac{1}{166153499473114484112975882535043072}$ - $\frac{1}{332306998946228968225951765070086144}$ - $\frac{1}{664613997892457936451903530140172288}$ - $\frac{1}{1329227995784915872903807060280344576}$ - $\frac{1}{2658455991569831745807614120560689152}$ - $\frac{1}{5316911983139663491615228241121378304}$ - $\frac{1}{10633823966279326983230456482242756608}$ - $\frac{1}{21267647932558653966460912964485513216}$ - $\frac{1}{42535295865117307932921825928971026432}$ - $\frac{1}{85070591730234615865843651857942052864}$ - $\frac{1}{170141183460469231731687303715884105728}$ - $\frac{1}{340282366920938463463374607431768211456}$ - $\frac{1}{680564733841876926926749214863536422912}$ - $\frac{1}{1361129467683753853853498429727072845824}$ - $\frac{1}{2722258935367507707706996859454145691648}$ - $\frac{1}{5444517870735015415413993718908291383296}$ - $\frac{1}{10889035741470030830827987437816582766592}$ - $\frac{1}{21778071482940061661655974875633165533184}$ - $\frac{1}{43556142965880123323311949751266331066368}$ - $\frac{1}{87112285931760246646623899502532662132736}$ - $\frac{1}{174224571863520493293247799005065324265472}$ - $\frac{1}{348449143727040986586495598010130648530944}$ - $\frac{1}{696898287454081973172991196020261297061888}$ - $\frac{1}{1393796574908163946345982392040522594123776}$ - $\frac{1}{2787593149816327892691964784081045188247552}$ - $\frac{1}{5575186299632655785383929568162090376495104}$ - $\frac{1}{11150372599265311570767859136324180752990208}$ - $\frac{1}{22300745198530623141535718272648361505980416}$ - $\frac{1}{44601490397061246283071436545296723011960832}$ - $\frac{1}{89202980794122492566142873090593446023921664}$ - $\frac{1}{178405961588244985132285746181186892047843328}$ - $\frac{1}{356811923176489970264571492362373784095686656}$ - $\frac{1}{713623846352979940529142984724747568191373312}$ - $\frac{1}{1427247692705959881058285969449495136382746624}$ - $\frac{1}{2854495385411919762116571938898990272765493248}$ - $\frac{1}{5708990770823839524233143877797980545530986496}$ - $\frac{1}{11417981541647679048466287755595961091061972992}$ - $\frac{1}{22835963083295358096932575511191922182123945984}$ - $\frac{1}{45671926166590716193865151022383844364247891968}$ - $\frac{1}{91343852333181432387730302044767688728495783936}$ - $\frac{1}{182687704666362864775460604089535377456991567872}$ - $\frac{1}{365375409332725729550921208179070754913983135744}$ - $\frac{1}{730750818665451459101842416358141509827966271488}$ - $\frac{1}{1461501637330902918203684832716283019655932542976}$ - $\frac{1}{2923003274661805836407369665432566039311865085952}$ - $\frac{1}{5846006549323611672814739330865132078623730171904}$ - $\frac{1}{11692013098647223345629478661730264157247460343808}$ - $\frac{1}{23384026197294446691258957323460528314494920687616}$ - $\frac{1}{46768052394588893382517914646921056628989841375232}$ - $\frac{1}{93536104789177786765035829293842113257979682750464}$ - $\frac{1}{187072209578355573530071658587684226515959365500928}$ - $\frac{1}{374144419156711147060143317175368453031918731001856}$ - $\frac{1}{748288838313422294120286634350736906063837462003712}$ - $\frac{1}{1496577676626844588240573268701473812127674924007424}$ - $\frac{1}{2993155353253689176481146537402947624255349848014848}$ - $\frac{1}{5986310706507378352962293074805895248510699696029696}$ - $\frac{1}{11972621413014756705924586149611790497021399392059392}$ - $\frac{1}{23945242826029513411849172299223580994042798784118784}$ - $\frac{1}{47890485652059026823698344598447161988085597568237568}$ - $\frac{1}{95780971304118053647396689196894323976171195136475136}$ - $\frac{1}{191561942608236107294793378393788647952342390272950272}$ - $\frac{1}{383123885216472214589586756787577295904684780545900544}$ - $\frac{1}{766247770432944429179173513575154591809369561091801088}$ - $\frac{1}{1532495540865888858358347027150309183618739122183602176}$ - $\frac{1}{3064991081731777716716694054300618367237478244367204352}$ - $\frac{1}{6129982163463555433433388108601236734474956488734408704}$ - $\frac{1}{12259964326927110866866776217202473468949912777468817408}$ - $\frac{1}{24519928653854221733733552434404946937899825554937634816}$ - $\frac{1}{49039857307708443467467104868809893875799651109875269632}$ - $\frac{1}{98079714615416886934934209737619787751599302219750539264}$ - $\frac{1}{196159429230833773869868419475239575503198604439501078528}$ - $\frac{1}{392318858461667547739736838950479151006397208879002156544}$ - $\frac{1}{784637716923335095479473677900958302012794417758004313088}$ - $\frac{1}{1569275433846670190958947355801916604025588835516008626176}$ - $\frac{1}{3138550867693340381917894711603833208051177671032017252352}$ - $\frac{1}{6277101735386680763835789423207666416102355342064034504704}$ - $\frac{1}{12554203470773361527671578846415332832204710684128069009408}$ - $\frac{1}{25108406941546723055343157692830665664409421368256138018816}$ - $\frac{1}{50216813883093446110686315385661331328818842736512276037632}$ - $\frac{1}{100433627766186892221372630771322662657637685473024552075264}$ - $\frac{1}{200867255532373784442745261542645325315275370946049104150528}$ - $\frac{1}{401734511064747568885490523085290650630550741892098208301056}$ - $\frac{1}{803469022129495137770981046170581301261101483784196416602112}$ - $\frac{1}{1606938044258990275541962092341162602522202967568392833204224}$ - $\frac{1}{3213876088517980551083924184682325205044405935136785666408448}$ - $\frac{1}{6427752177035961102167848369364650410088811870273571332816896}$ - $\frac{1}{12855504354071922204335696738729300820177623740547142665633792}$ - $\frac{1}{25711008708143844408671393477458601640355247481094285331267584}$ - $\frac{1}{51422017416287688817342786954917203280710494962188570662535168}$ - $\frac{1}{102844034832575377634685573909834406561420989924377141325070336}$ - $\frac{1}{205688069665150755269371147819668813122841979848754282650140672}$ - $\frac{1}{411376139330301510538742295639337626245683959697508565300281344}$ - $\frac{1}{822752278660603021077484591278675252491367919395017130600562688}$ - $\frac{1}{1645504557321206042154969182557350504982735838790034261201125376}$ - $\frac{1}{3291009114642412084309938365114701009965471677580068522402250752}$ - $\frac{1}{6582018229284824168619876730229402019930943355160137044804501504}$ - $\frac{1}{13164036458569648337239753460458804039861886710320274089609003008}$ - $\frac{1}{26328072917139296674479506920917608079723773420640548179218006016}$ - $\frac{1}{52656145834278593348959013841835216159447546841281096358436012032}$ - $\frac{1}{105312291668557186697918027683670432318895093682562192716872024064}$ - $\frac{1}{210624583337114373395836055367340864637790187365124385433744048128}$ - $\frac{1}{421249166674228746791672110734681729275580374730248770867488096256}$ - $\frac{1}{842498333348457493583344221469363458551160749460497541734976192512}$ - $\frac{1}{1684996666796914987166688442938726917102321498920995083469952385024}$ - $\frac{1}{3369993333593829974333376885877453834204642997841990166939904770048}$ - $\frac{1}{6739986667187659948666753771754907668409285995683980333879809540096}$ - $\frac{1}{13479973334375319897333507543509815336818571991367960667759619080192}$ - $\frac{1}{26959946668750639794667015087019630673637143982735921335519238160384}$ - $\frac{1}{53919893337501279589334030174039261347274287965471842671038476320768}$ - $\frac{1}{107839786675002559178668060348078522694548575930943685342076952641536}$ - $\frac{1}{215679573350005118357336120696157045389097151861887370684153905283072}$ - $\frac{1}{431359146700010236714672241392314090778194303723774741368307810566144}$ - $\frac{1}{862718293400020473429344482784628181556388607447549482736615621132288}$ - $\frac{1}{1725436586800040946858688965569256363112777214895098965473231242264576}$ - $\frac{1}{3450873173600081893717377931138512726225554429790197930946462484529152}$ - $\frac{1}{6901746347200163787434755862277025452451108859580395861892924969058304}$ - $\frac{1}{13803492694400327574869511724554050904902217719160791723785849938116608}$ - $\frac{1}{27606985388800655149739023449108101809804435438321583447571699876233216}$ - $\frac{1}{55213970777601310299478046898216203619608870876643166895143399752466432}$ - $\frac{1}{110427941555202620598956093796432407239217741753286333790286799504932864}$ - $\frac{1}{220855883110405241197912187592864814478435483506572667580573599009865728}$ - $\frac{1}{441711766220810482395824375185729628956870967013145335161147198019731456}$ - $\frac{1}{883423532441620964791648750371459257913741934026290670322294396039462912}$ - $\frac{1}{1766847064883241929583297500742918515827483868052581340644588792078925824}$ - $\frac{1}{3533694129766483859166595001485837031654967736105162681289177584157851648}$ - $\frac{1}{7067388259532967718333190002971674063309935472210325362578355168315703296}$ - $\frac{1}{14134776519065935436666380005943348126619870944420650725156710336631406592}$ - $\frac{1}{28269553038131870873332760011886696253239741888841301450313420673262813184}$ - $\frac{1}{56$

Socrates We said that God revealed in the universe two elements, the infinite [$\tilde{A}x \frac{1}{4}r\frac{1}{2} \tilde{A}\mu^1\tilde{A}\tilde{\epsilon}\frac{1}{2}$ - *tò mèn ápeiron*] and the finite [$\tilde{A}x \tilde{r} \tilde{A}-\tilde{A}\pm\tilde{A}$ - *tò dè péras*], did we not?

Protarchus Certainly.

Socrates Let us, then, assume these as two of our classes, and a third, made by combining these two. (*Philebus*, 23c, transl. Harold N. Fowler)

Numbers make this "mixture" possible. The third class to which rhythm belongs is that of "the equal and double and everything which puts an end to the differences between opposites and makes them commensurable and harmonious by the introduction of number." i.e. the arithmetical proportions.

Socrates The class of the finite, which we ought just now to have reduced to unity, as we did that of the infinite. We have not done that, but perhaps we shall even now accomplish the same end, if these two are both unified and then the third class is revealed.

Protarchus What third class, and what do you mean?

Socrates The class of the equal and double and everything which puts an end to the differences between opposites and makes them commensurable and harmonious by the introduction of number. (*Philebus*, 25d-e, transl. Harold N. Fowler)

"The acute and the grave" (pitch) and "the quick and the slow" (rhythm) which are by nature "infinite" or "unlimited" are transformed by the introduction of the "finite" or the "limited" into them into harmony and eurhythmmy. Hence in art but also more generally, all beauties and perfections depend on the "mixture" of these two basic ontological elements.

Protarchus I understand. I think you mean that by mixture of these elements certain results are produced in each instance.

Socrates Yes, you are right.

Protarchus Go on.

Socrates In cases of illness, does not the proper combination of these elements produce health?

Protarchus Certainly.

Socrates And in the acute and the grave, the quick and the slow, which are unlimited [ἄμεινον], the addition of these same elements creates a limit and establishes the whole art of music in all its perfection, does it not?

Protarchus Excellent. (*Philebus*, 25e-26b, transl. Harold N. Fowler)

As we will see very soon in *The Timaeus*, numbers are intermediate entities in a larger cosmogony. Through them, rhythm is finally explained by the doctrine of the *ápeiron*, viz. the formless, vague, indefinite, unlimited, infinite of more or less, into which the *métrion*, viz. order, harmony, measure, symmetry, law are introduced by the limiting *péras*, the *definite* principle. As a matter of fact both doctrines of number and unlimited/limited are borrowed from the

The material world which was still "in a state devoid of reason or measure" (*alîgos kai amétrôis*) was then fashioned and shaped by Demiurge "by means of forms and numbers" (*éidesí te kai arithmoís*).

Before that time, in truth, all these things were in a state devoid of reason or measure [$\dot{\Lambda}^{-1/2}\ddot{\Lambda}_{\pm}\ddot{\Lambda}_{\pm}\ddot{\Lambda}^{1/2}$
 $\mu\delta\zeta\mu^{1/2}$ » $\dot{\iota}^3\dot{\epsilon}\dot{\alpha}^{\circ\pm\nu}$ $\frac{1}{4}\ddot{\Lambda}\dot{\epsilon}\dot{\alpha}$] but when the work of setting in order this Universe was being undertaken, fire and water and earth and air, although possessing some traces of their own nature, were yet so disposed as everything is likely to be in the absence of God; and inasmuch as this was then their natural condition, God began by first marking them out into shapes by means of forms and numbers [$\dot{\iota}^1\mu\dot{\alpha}\zeta\cdot\frac{1}{4}\pm\ddot{\Lambda}^-\ddot{\Lambda}\pm\ddot{\Lambda}\zeta$ $\mu^4\dot{\iota}\mu\dot{\alpha}^-\ddot{\Lambda}\mu$
 $\circ\pm\nu$ $\dot{\alpha}^1$, $\frac{1}{4}\zeta\ddot{\alpha}\dot{\alpha}$]. (*Timaeus*, 53a-b, trans. W.R.M. Lamb)

What does "shaped by means of forms and numbers" exactly mean? According to Aristotle, Plato thinks of numbers as intermediary entities between the Forms, which are "the causes of everything else," and the sensible things, which "participate in them." Although he disagrees with the Pythagoreans, on the one hand, on the nature of the original Unlimited which he posits as a duality the "Great and Small" and not as a singularity, and on the other hand, on that of the sensible things, which he holds as distinct from numbers, he agrees with them "in stating that the numbers are the causes of Being in everything else."

Plato states that besides sensible things and the Forms there exists an intermediate class, the objects of mathematics, [arithmetical numbers and geometrical figures] which differ from sensible things in being eternal and immutable, and from the Forms in that there are many similar objects of mathematics, whereas each Form is itself unique.

Now since the Forms are the causes of everything else, he supposed that their elements are the elements of all things. Accordingly the material principle is the "Great and Small," and the essence is the One, since the numbers are derived from the "Great and Small" by participation in the One. In treating the One as a substance instead of a predicate of some other entity, his teaching resembles that of the Pythagoreans, and also agrees with it in stating that the numbers are the causes of Being in everything else; but it is peculiar to him to posit a duality instead of the single Unlimited, and to make the Unlimited consist of the "Great and Small." He is also peculiar in regarding the numbers as distinct from sensible things, whereas they hold that things themselves are numbers, nor do they posit an intermediate class of mathematical objects. (*Metaphysics*, 1.987b, trans. Hugh Tredennick)

It seems that Plato is regarding the Earth as stationary and set at the center of the Cosmos whose movements are compared *metaphorically* to "choric dances," that is endowed with harmony and rhythm.

And Earth, our nurse, which is globed around the pole that stretches through all, He framed to be the wardress and fashioner of night and day, she being the first and eldest of all the gods which have come into existence within the Heaven. But the choric dances of these same stars and their crossings one of another, and the relative reversals and progressions of their orbits, and which of the gods meet in their conjunctions, and how many are in opposition, and behind which and at what times they severally pass before one another and are hidden from our view, and again re-appearing send upon men unable to calculate alarming portents of the things which shall come to pass hereafter, to describe all this without an inspection of models of these movements would be labor in vain. (*Timaeus*, 40b-d, trans. W.R.M. Lamb)

But in other instances Plato is a little more specific about the "choric dance" of the stars which appears actually to be perfectly circular.

For movement He assigned unto it that which is proper to its body, namely, that one of the seven motions which specially belongs to reason and intelligence; wherefore He spun it round uniformly in the same spot and within itself and made it move revolving in a circle; and all the other six motions He took away and fashioned it free from their aberrations. (*Timaeus*, 34a, trans. W.R.M. Lamb)

Hence among the things belonging to the imperfect transient human Lower World that were organized or shaped in respect to numbers there was Time itself, according to which things are generated, maintained then destroyed. Time was made as "a movable image" of Eternity "moving according to number [*kat' arithmòn ioûsan*]." The term "rhythm" itself is not present in this instance but it is likely that "number" is used *instead*, i.e. precisely where other philosophers used it in order to denote the *multiple manners* of the becoming. We do not know for sure if Plato was already thinking to the play on words assimilating *rhuthmós* to *arithmós* which will later become usual, but it is quite possible. Anyhow the becoming now flows according to the most perfect rhythm: the numbered Time.

But inasmuch as the nature of the Living Creature was eternal, this quality it was impossible to attach in its entirety to what is generated; wherefore He planned to make a movable image of Eternity, and, as He set in order the Heaven, of that Eternity which abides in unity He made an eternal image, moving according to number [*οὐκ ἄλλοιῶν ἄλλοιῶν, ¼x½ 0ζæÄ±½*], even that which we have named Time. (*Timaeus*, 37d, trans. W.R.M. Lamb)

All this results in one ethical contention. In order to take good care of our soul, we must try to make the cyclical movements of the human microcosm tune with those of the larger macrocosm which are organized according to "the revolutions [in the classical sense of cycle/rotation/going round in an orbit] of reason."

God devised and bestowed upon us vision to the end that we might behold the revolutions [*Ἀμῶν ἰ' ἔῶν*] of Reason in the Heaven and use them for the revolvings of the reasoning that is within us, these being akin to those, the perturbable to the imperturbable; and that, through learning and sharing in calculations which are correct by their nature, by imitation of the absolutely unvarying revolutions of the God [*Ἄζæ, μζæ Ἀ-½ἌἌ Ἀ»±½μῶν ἔῶν ἌἌ* - lit. the God in all ways stays fixed] we might stabilize the variable revolutions within ourselves [*½ !¼Ö½ Ἀμῶν»±½·¼-½±Ἄ* - *en êmîn peplanêménas lit. In what indeed makes me wander*]. (*Timaeus*, 47b-c, trans. W.R.M. Lamb)

Hence if rhythm is the "order of motion" of the dancers as mentioned in *The Laws*, 2.665a, if that order reflects and influences the variable "disposition of the character and the mind" as explained in *The Republic*, 3.400e, if therefore the State must rhythmically control and shape the body and the mind of the citizens as explained at length in *The Laws*, book 2, and finally if "the variable revolutions within ourselves" should try to replicate "the absolutely unvarying revolutions of the God" as suggested in *Timaeus*, 47c, we may conclude that the first three levels Body, Mind and Society should be regulated according to the perfect geometrical and arithmetical order of the fourth. Rhythm as harmony in dancing and song, along with speech, which have been "bestowed upon us by the gods" to mend our

Hence, as emblem of most philosophers giving primacy to Becoming upon Being, once re-formulated as *kinêseos táxis*, order of motion/ movement, *rhuthmós* was a major piece of loot enabling to set again the Becoming under the rule of the eternal and unchangeable Being through a "a movable image [of It], moving according to number." And the danger of Heraclitus' and Democritus' doctrines for the moral and political good of the State could be efficiently repelled.

* For the first time in the West, Plato set up a complete cosmic and metric paradigm, which encompasses a perfect and immutable model the upper-part of the cosmos organized according to rational numbers and periodic movements and a replica its lower-part and the humans living in it which is mostly chaotic and irrational. Since the universe is split into these two opposite parts, the aim of the Ideal City is to make the humans follow the rational and measured patterns of the upper Cosmos. Therefore the State has to strictly control and shape the bodies and minds of the citizens.

The authoritarian if not totalitarian potential of this aesthetic, educational, ethical and political program developed in Plato's dialogues has attracted regular criticism since the 1930s and particularly after the collapse of the regimes which had been more or less directly influenced by it (e.g. K. Popper, *The Open Society and Its Enemies*, 1945; E. Cassirer, *The Myth of the State*, 1949).

But, although there is plenty of evidence of the attention paid by Plato to the role of rhythm in the education of the citizens as well as in the making of society, the crucial role played by the concept of *eurhythmia* in this program has rarely been given its due weight. Since it was connected with poetry and music, social scientists and political philosophers have usually left this aspect of Plato's thought, considered as of minor importance, to aesthetic, music or literature specialists. Conversely, these specialists have studied rhythm as a sheer aesthetic or educational concept.

Yet, as we will see in the next volume, before becoming part of the common cultural policy of totalitarian regimes in the 20th century, this peculiar blend of aesthetic, poetic, ethical, and political considerations which supported the notion of *eurhythmia* became at the end of 19th and the beginning of the 20th centuries, the most important issue for numerous poets, dancers, educationists and social thinkers, in Germany and other countries as well. It is also clearly reminiscent of more recent threats coming from fundamentalist ideologies according to which music, dance, poetry, theater, and from that the whole education and daily life of the citizens, are also to be strictly rhythmized on religious ground.

Eurhythmia in its aesthetic, ethical and political mixed dimensions, is thus the second *question* that will be addressed in this book. In addition to the deconstruction of the Platonic history of rhythm and the recognition of the resurgences and new developments of the pre-Platonic idea of *rhuthmos*, I will try to figure out how a non- if not anti-Platonic concept of *eurhythmia* could be elaborated.

For the time being let us recapitulate the few pieces of information we have been able to gather on this matter. Before the 4th century BC, there is no evidence of a theory of *eurhythmia*. We can only guess what it could have been from scarce fragments. But such lack of factual evidence must not prohibit to try a reconstruction because it entails artistic, ethical and political stakes which are still relevant today.

1. Democritus would have rejected the unbelievable intervention of gods in human rhythmic affairs and most of the arbitrary rhythmic taboos and divides with which Plato is saturating the social field.

2. But, as for Plato and more modern anthropologists as Mauss or Evans-Pritchard only a "rhythmized" human being

would be plainly human. Anthropologically and sociologically, rhythm would be crucial for the individuation of singular and collective individuals.

3. However, unlike for Plato, rhythm would be a way for each individual to find his and we can now add her singular way to live. Changing *rhuthmoi* would subtly give a variety of shapes to the lives of the citizens and would not be mere means of control of the individuals by the State.

4. *Eurhythmmy* would support the making of an open and democratic society and would oppose considering rhythm as a Form and therefore any rhythmic order of the society as sacred.

In a certain sense, we can have hints on what eurhythmmy could mean for pre-Platonic thinkers like Leucippus and Democritus, who were well-known supporters of democracy, by looking to what Plato is rejecting the most violently:

5. the possibility given to children to choose freely the rhythms of their games, exercise their creativity, and "grow up into men different from their fathers";

6. the possibility given to any citizen to invent new rhythms and harmonies, ranging from new poems or tunes, new ways of speaking and moving, new manners in daily life, to *new ways of making society*;

7. the ethical and political role of the artists and especially the poets, as artists of language, who show every day by the smallest poem or the tiniest work of art, that it is always possible to invent new rhythms and songs, i.e. to give new shapes to speech and motion and therefore to individual minds and social interactions.

[Next chapter](#)