
Plato on Music, Soul and Body by Francesco Pelosi. Translated by Sophie Henderson

Cambridge/New York: Cambridge University Press, 2010. Pp. viii + 228. ISBN 978-0-521-76045-4. Cloth \$95.00

Reviewed by

Anne Gabrièle Wersinger
CNRS (Centre Pépin, UPR76)
wersinger@vjf.cnrs.fr

The relationship between body and mind is one of the traditional problems met by those who specialize in Plato's work. But recently scholars such as Sabina Lovibond have shown a fresh interest for a Platonic philosophy of mind freed from the dualistic view which used to predominate. It is from this perspective, which is profitable for modern cognitive research, that Francesco Pelosi's book (a revised version of a Ph.D. thesis in philosophy) should be read.

The author's method is particularly interesting because it tries to interpret Plato's philosophy of mind and his reflection on the relationship between soul and body in the light of his thought on music. One must be aware of the numerous musical metaphors that exist in Plato's dialogues such as that of the 'prelude and the song' that Socrates uses in *Rep.* 7. This metaphorical choice, made in order to define the difference between the scientific disciplines (*μαθηματικά*) and dialectic, is striking. Also striking is Socrates' warning in the *Phaedo*, 'practise and compose music', which one should understand first of all as an indication of the double meaning of 'music', which has not only a common sense but also a philosophical and deeper sense, so that dealing with music means dealing with philosophy as well. If scholars such as Evangelos Moutsopoulos have carefully studied Plato's theory of music, Pelosi's originality consists in considering music as providing, so to speak, 'laboratory conditions' for the study of the body and mind relationship in Plato's work. Pelosi's knowledge in the field of ancient music, which owes much to Andrew Barker's work, permits him to reconsider the psychological and epistemological relation between body and mind not only through Plato's later dialogues (*Timaeus* and *Laws*) but in the *Phaedo* as well.

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ISSN 1549-4497 (ONLINE) ISSN 1549-4470 (PRINT) ISSN 1549-4489 (CD-ROM)
Aestimatío 9 (2012) 208-219

The book contains an introduction, four chapters, a conclusion, and some bibliographical references followed by an *index locorum*. Of course, it is not possible here to do justice to all the details of the author's argument, so I shall sum up its key results while studying the book critically.

Chapter 1 starts with the *Laws*, where the ancient practice of singing and rocking babies to make them sleep is compared to the curative rites of the Corybantes which are based on the movement of dance and irrational music in which 'madness has to cure madness' [16]. We then penetrate Plato's educative program in the *Republic*. Exploring the elements of the embodied soul, the author deals with the effect of musical education on sensibility [14–28] and tackles the theory of ἦθος and musical μίμησις [29–67].

One important point which Pelosi brings out is that Plato finds a place between the proponents of the ἦθος-theory («ἦθος» meaning 'character') who believe that it is possible to translate mental states and ethical contents into sounds and the formalists (such as those of the Hibeh papyrus) who reject the idea that music expresses feelings and emotions, and argue that only words carry an educative and psychagogic function. Pelosi rightly reminds us that Plato deals with a concept of μουσική where harmonies and rhythms are subordinated to words on the ground that music without words can corrupt the educative value of μουσική in that it is solely affective [61]—as, for instance, the New Music was said to, by focusing on the versatility of instruments in the interest of inducing affective states rather than ethical dispositions.

As ἀρμονίαι play an important role in the theory of ἦθος, Pelosi follows the usual and well known scholarly reconstructions of the ancient ἀρμονίαι based on witnesses such as Aristides Quintilianus and the Aristotelian *Problemata* [36]. We should remember that, as a ἀρμονία plays a role in the tuning of the chord, each tuning corresponding to a degree of tension, ἀρμονίαι are connected to the contrast between tension and relaxation. The technical meaning of 'tense' and 'slack' initially refer to the nerves of the body and to the strings of instruments, as in *Phaedo* 86b7. But «ἀρμονίαι» has a second meaning derived from its capacity to imitate the movements of the soul, that is to say, its emotions and passions. The author could have also mentioned here the fact that emotions have their

physiological correspondence in the way that the heart is stressed or relaxed by movements [*Tim.* 69c1, 70d5].

But if Proclus, Pherecrates, Agathon, and Melanippides would seem to tell us about the ‘slack’ character of the New Music which is called ‘chromaticism’ and associated with the languid *ἀρμονία* rejected by Plato, against this stands Aristoxenus’ testimony in which languid melody is associated with tense music. And in *Rep.* 411e4–412a2, where the two parts of the soul (the spirited and the philosophical) are compared to two strings on which music acts by slackening the first and making tense the second with the aim of tuning them, ‘tense’ and ‘slack’ have neither negative nor positive ethical meaning as they are both necessary to produce the equilibrium of the soul [40–41].

Given such an ambiguity, Pelosi argues, it is not surprising if other passages of the *Republic* [e.g., 411e2] show that a harmful effect of music on the soul does not derive from ‘tense’ or ‘slack’ *ἀρμονία* but from a ‘repeated exposure’ to music. But such a claim is not convincing: *Rep.* 410c8–412a2 concerns the effects of the practice of music or gymnastics—gymnastics is also necessary [410b5]—on the soul *and thought* (*διάνοια*) [410c8] to the exclusion of all else. Attention to music alone affects both the ‘philosophical’ [410d5–6] and the ‘spirited’ [411a9–b5]. The effects are described in the dynamics of slackness (*ἄνεσις*) and tension (*τάσις*). In 411a5–b5, Socrates describes the way the soft (*μαλακαί*), sweet (*γλυκεῖαι*) and mournful (*θρηνοδεῖς*) *ἀρμονία* influence the soul when music only is practiced. It does not mean an ‘overdose’ of music as Pelosi asserts but a process of excessive slackening, an operation precisely fulfilled by *bad ἀρμονία*. It does not mean that ‘good’ *ἀρμονία*, such as the Dorian and the Phrygian are forgotten in the process. Though Socrates is not explicit, nothing forbids hypothesizing that the first degree of slackening coincides with the Dorian and Phrygian. After all, Socrates says that the ‘philosophical’ is gentle before it becomes too slack [410d5–6] and that the ‘spirited’, before it melts and dissolves until it is completely liquified [411b2–5], is at first softened, losing its roughness (*σκληρότης*) and becoming *χρήσιμον* [411b1] a word that means morally useful, obliging, and benevolent.¹ The continuous slackening supposes the

¹ See *Rep.* 413d5–6 where Socrates says that music renders man useful for himself and for the state.

faculty of modulating between all the *ἀρμονίαι*, an operation introducing *πολυαρμονία* or *παναρμονία* and which is connected to instruments that are *πολυχορδοτάτοι* ('with several *chords*', that is, 'with several forms or *τροποί*') such as the *αὐλός*.

Music without words, exciting pleasure, acts evasively on the soul.² The only music admitted by Plato is the one in which the different *μιμήσεις* linked to different characters are clearly specified and, of course, words play a capital role in this.

Pelosi uses Koller's concept of *μίμησις*, meaning 'representation' ('Darstellung') not 'imitation' and originally limited to music and dance [58]. For instance, in the *Laws*, music expresses ethical and emotive content through movements of the body and voice. Those movements 'represent' the attitudes assumed in particular situations, where such dispositions are defined in an ethical sense. Small variations of movements will be expressed by moderate individuals whereas cowardly individuals will have violent and greater movements [59]. In the *Republic*, the Dorian and Phrygian *ἀρμονίαι* 'represent' the sounds (*φθόγγοι*) and the modulations of the speaking voice (*προσφῶδῖαι*) of the courageous and the temperate by means of the *φθόγγοι* and *προσφῶδῖαι* themselves. Pelosi rightly asserts that *μίμησις* here is not the expression of an 'irritable and variable character' but of 'an intelligent and tranquil character'. There are two kind of *μιμήσεις*: one is a rich and varied expression of irrationality; the other is a simple, verbal one that represents positive and moral exempla, as do the Dorian and Phrygian [63].³

Chapter 2 begins by dealing with Plato's musical treatment of reason [68–89]. The immortal principle of the human soul is formed with the elements of the cosmic soul so that it derives from a musical nature [73]. The structure of the rational soul is that of two circular movements, the Same and the Different, the latter being divided into seven unequal circles that move according to precise ratios. The structural and ontological analogy between harmonious movement and the soul grounds the action of *ἀρμονία* on the soul through the

² See page 222 and the second paragraph in ch. 1.

³ See *Rep.* 399a5–c3, where the Dorian and Phrygian are defined as imitating moral attitudes through exempla: one of a wounded warrior who bravely fights against adversity, the other of a man persuading, praying or being persuaded, with moderation.

sense of hearing. Rhythm plays a role as well because of the proportion that governs the motions of the seven circles of the Different.

The damage occasioned to the human psyche by contact with a body is described as a perturbation of the numerical and musical structure [*Tim.* 42e–44b]. Pelosi rightly outlines the *disharmony* that proceeds from incarnation [77], where ‘disharmony’ indicates the complete over-tuning of the embodied soul immersed in a sensory field. That is why the search for a harmony between soul and body lasts for the whole of existence and one must not neglect the important fact that any such harmony belongs to an incarnate soul [80].

Pelosi makes interesting remarks about how the ontological and moral hierarchy between the elements of the soul is projected within the body space [86] and notices that the mind-body interaction includes the conception of a psychic purpose for the corporeal organs and the production of physical effects by psychic activity. The marrow is an illustration of the mind-body connection comparable to the Cartesian pineal-gland [87]. Its proportioned structure (συμμετρία) [73c1] fits the proportioned rational soul [88]. Other illustrations show the reason why sensory stimuli can direct the rational soul towards correct movement [88–89].

The second part of chapter 2 [89–113] concentrates on the intellectual activity regarding the sensible and the rational, recalling the role of the two circles in the soul, the Different and the Same, so that one may notice first of all that it is through kinetic activity that the intellectual process is achieved. Music, in favoring the re-ordering of the circles of the soul, contributes by creating the conditions for the ‘silent interior dialogue of the soul’ which expresses a correct cognitive process [93]. Pelosi recalls the *Theaetetus*, the *Philebus*, and the *Sophist*, where the conditions of the interior dialogue and especially the role of difference and sameness are examined [91–92]. He takes notice of the fact that in the *Timaeus* what results from the damage caused by the contact of the soul with the body is the loss of the ability to correctly predict sameness and difference. But the embodied soul is nevertheless capable of taking on the data of the sensory world to a certain extent so that we may reconstruct the musical experience as a mute dialogue of the soul in which the circle of the Different carries the cognitive activity [94].

Pelosi addresses the problem of understanding how the embodied soul characterized as unreasonable [*Tim.* 44a8 ἄνοος] could undergo a rational and *noetic experience*. The analysis of the perception of sound in 67b2–5 shows that the rational soul plays a role in the hearing of music. While, in most people, sound activates the circle of the Different, which thus provides an elementary decoding of the acoustic stimuli, in those who can recognize the logical component of the music, the circle of the Same permits the decoding of realities that are rational. There is a rational depth to music, the perception of concord [80b5–8] which brings pleasure in the unintelligent but delight (εὐφροσύνη) in the wise (ἔμφρονας) due to the representation of the divine harmony in mortal movements [97]. While gathering the super-sensory content of music, the soul seizes the affinity between that content and the original structure of the rational soul. Εὐφροσύνη is the emotion of musical experience indicated by «μετὰ νοῦ» [47d3]. There is a ‘joy of knowledge’, although the cause of the emotion resides in acoustic stimuli. The sensation of pleasure restores the natural condition and, in *Phil.* 31d8–10, this restoration is called a ‘re-harmonisation’. It proves that music remains a concrete experience for the wise also. That is why, in the *Timaeus*, it is not the study of harmonics to which the wise are invited but the concrete experience of listening to music [111]. The *Timaeus* should not be reduced to *Rep.* 7 for those reasons.

Chapter 3 concentrates on the musical education of rationality, starting with *Rep.* 7 [114–128]. This chapter is less original than other chapters of the book, the author here following what scholars have said on the subject. ‘Higher education’ is not a matter of knowing something new. Just as basic education does not aim at teaching something, it aims at making someone become something; what it fosters is another interior mutation [121]. As in Socrates’ treatment of arithmetic and geometry, it is the method that is stressed in the last two μαθήματα, astronomy and harmonic science [123]. The astral figures have the same value as the geometric figures. They must act as paradigms of true astronomical objects. Working with the ‘problems’ of astronomy does not imply dismissing the stars but going from the trajectories of the visible stars to diagrams. Diagrams have to be considered for themselves without further recourse to the phenomena in order to assess their correctness [127]. In *Tim.* 40c3–d3, it seems that the use of an armillary sphere for studying celestial movements

(though *Timaeus* says that it would be a futile undertaking) could illustrate the task defined in the *Republic*.

Pelosi's treatment of the Divided Line is rather evasive when he asserts that the bodies on which mathematicians work are images used to make out the intelligible realities that can only be assumed with *διάνοια*. It should be stressed here that Socrates chooses to present its object *via* a well known method, the geometrical proportion which belongs to *λογιστική*, a science specializing in the search for models of proportion in order to solve mathematical problems, of which Plato's dialogues offer us some illustrations such as the duplication of the square in the *Meno*. Key in architecture, sculpture, rhetoric and music, its function in the arts and the sciences [522c1–9, 522b9] makes it an exemplary method. But this method is only preparatory to dialectic and, though it helps to have an overview (*σύνοψις*) of the relationship between the sciences, this method must not be identified with dialectic [537c2–7]. In fact, as the the Divided Line occurs in the middle of a sequence where three attempts to reach the Good follow one another, beginning with the image of the Sun [506e] and ending with dialectic [532a–535a], its status is intermediate.

Pelosi could have noticed that in representing the work of the mathematicians through a device which itself is paradigmatically mathematical, Socrates recursively shows why mathematics remain inferior to dialectic, though aiming at the same ontological objects. But for the same reason we must also be careful not to take the Divided Line for a procedure capable of shedding full light on the matter.

The second part of chapter 3 [128–151] concentrates on harmonics. But the treatment seems to me unconvincing. For instance, Pelosi does not place in its right context Plato's allusion to the Pythagorean claim that astronomy and harmonics are kindred sciences, the first using the eyes while the second uses the ears [128–129]. And it is not true that the Archytas' remark in which the relationship between astronomy, geometry, arithmetic and music is asserted [Diels and Kranz 1956, 47A1] is comparable to *Rep.* 7, in which arithmetic and geometry are thought kindred because they concern fixed objects, while music and astronomy focus on mobile objects [129]. One has to reflect on the many criteria offered by Socrates in the passage: he tries to classify the preparatory sciences according to criteria

of dimension, movement and rest, and perception of movement, in which the difference between seeing and hearing does not mean that harmonics and astronomy are at the same level at all. Moreover, the privileging of harmonics is not due to Pythagorean inclinations: one must be more attentive to the differences between Archytas' remark and what really happens in *Rep.* 7. Consequently, Pelosi misses also the explanation for another observation that he makes [148 and n57]: if the study of sounds becomes a study of numbers, the relationship that harmonic science has with the sensory is cancelled out and, consequently, the difference between the first three disciplines fades, leaving arithmetic as the only really effective science.⁴

Things are better when Pelosi stresses the fact that Plato accuses Pythagoreans of having a bad approach to harmonics. The author rightly recalls the comparison [531a–b] between the Pythagoreans and the those called *ἀρμονικοί* who are engaged with the *καταπύκνωσις* mentioned by Aristoxenus, that is, those theorists who are dedicated to study of the enharmonic genus in the search of micro-intervals and use diagrams to measure intervals. The comparison, born from Glaucon's misunderstanding, serves to condemn the empirical approach to music. The use of diagrams and sensible tools in the study of harmony making 'sight of sound' [134] is probably the background for the criticism of empiricism.

By contrast, the Pythagorean method that consists in translating sound into numbers appears as an alternative way of doing harmonics. The Pythagoreans' procedure is defined by a reciprocal measuring of sounds and perceptible concords [139]. Since the Pythagoreans connect numbers to sensible elements, they are still empiricists even if they are mathematicians as well [140]. The Pythagoreans thus failed to create a science of harmony whose contents are 'problems' and 'consonant numbers'.⁵

Pelosi rightly observes that this accusation of empiricism does not fit well with Ptolemy's view according to which the Pythagoreans are criticized for using an aprioristic approach and for rejecting empiricism [144]. In this view, the Pythagoreans show many points of contact with Plato's conception of harmonics. The figure of Archytas is

⁴ On those problems, see [Wersinger 2008](#).

⁵ By the way, they do not understand that the audible consonants must be used as 'paradigms' for the study of the 'true' concords [143].

examined according to Ptolemy's testimony about Archytas' division of the tetrachord into three genera, which reveals a mathematical rigor in the study of musical practice [145].

Chapter 4 endeavors to examine the features of the presence of music in the body and the soul. The first part of the chapter considers Plato's treatment of acoustical phenomena and their perception [152–180]. *Tim.* 67a7–c3 offers a detailed definition of mechanisms tied to the acoustic sphere. The background of ancient acoustical theories is examined carefully [156]. In Plato's conception, sound is neither struck air, nor a movement of air, but a means of transmission of the impact emitted from a sonorous body.

The author pursues his examination of Plato's physiology of hearing. The first question is to understand the role of the brain and the blood. But there are textual difficulties to be solved first—the genitives «ἐγκεφάλου» and «αἵματος» can depend on «διά» or be objects of «πληγήν». Two interpretations, both referred to ancient accounts, are confronted. Then, Pelosi imagines a third possibility: the brain and the blood act as agents from which the impact derives and are not the end of the transmission of sound [158–159]. But as their role cannot be properly understood without examining the auditory process, the analysis of the textual difficulties goes on (the function of the two other genitives, «ὄτων» and «ψυχῆς», depending on two prepositions, «διά» and «μέχρι»). Pelosi feels reluctant to agree that sound should pass through the ears as through a funnel [160]. One has to understand that the ψυχή elaborates the sensations and is the end to which the affections tend. The elements comprised in the space delimited by «δι' ὄτων» and «μέχρι ψυχῆς», that is to say, brain and blood, are part of a psychophysical dimension, so that the passage of the *Timaeus* refers to the late Plato's 'psychologisation' of the perceptive act.

Pelosi follows Barker's argument that hearing (ἀκοή) is not sound [163] but rather the movement of the airy impact that is transmitted by the silent movements of the rational soul [*Tim.* 37b5–7] as this impact reaches the medial soul in the heart, the origin of the blood whose circulation [70b2 = 81b1–2] goes through all the parts of the body down to the liver [67b6], the place where the movements are reflected as appearances [71b4–6]. Thus, pitch [80a3–4] is due to hearing [165]. He then introduces some considerations concerning

the correlation of pitch to the speed of propagation, a common error made in ancient acoustics except in *Sectio canonis*, which holds that it is the frequency of the vibrations that determines pitch [166–167].

Next he discusses other qualities that Plato recognizes in sound, with a special mention of *ὁμοιότης* that plays a central role in *Timaeus* 80a–b [168–170], a passage which is translated and studied with great care. It deals with the mechanisms of movement in the absence of void and with the propagation and perception of sounds of varied pitch, especially concords. The problem is to explain how the initial simultaneity of two consonant sounds is restored during the perceptual process. Pelosi again follows Barker, who has argued that Plato does not contrast *συμφωνία* (concordance) to *διαφωνία* (a musical but not concordant phenomenon) but to *ἀναρμωσία* (a non-musical pattern of attunement) [173]. It implies that Plato does not think that concords are perceived as a blend of two different notes, which appears as the softening of a discord. Sounds would undergo a slowing down during their journey in the body. The fast, high-pitched sounds would catch up to and be impeded by the slower sounds of any lower pitch. The catching up occurs at the moment in which the faster sounds that are slowed down proceed with a movement that is *ὁμοῖος* to that of the slower sounds. To avoid the embarrassing conclusion of a *glissando* in each perceived sound, one has to suppose that it is the speed with which the sounds reach the hearing that determines the perceived pitch. A concord is perceived as a fusion between high- and low-pitched sounds, and this occurs when the impulse of the slow introduces itself in a fluid manner into the kinetic process of the high-pitched that is thus transformed into a single consonant movement [179]. In this sense, Plato connects *ὁμοιότης* to concords defined by precise ratios, multiple or epimoric, and the acoustic characteristic of uniformity seems to be the translation in perceptive terms of mathematical excellence of consonances [180].

The second part of the chapter [181–201] explores the question of the soul as *ἁρμονία*, starting with the *Phaedo* [181]. Pelosi recalls Simmias' objection (the analogy of the type 'soul is to the body what harmony is to the lyre') to the last Socratic argument in which the soul is assimilated to the divine. This analogy is replaced by a materialistic one in which harmony of the soul is an attunement between corporeal elements, according to Alcmaeon and some Hippocratic treatises [182]. Socrates opposes two arguments: harmony follows the elements that

compose it, while the soul dominates the corporeal elements; and if the soul is harmony, then virtue and vice cannot be explained [183]. Pelosi recalls how Plato reconsiders elsewhere the possibility of seeing harmony in the soul [185–187].

Justice too is expressed in a musical language where the three limits of ἄρμονία, the *nete*, the *hypate* and the *mese* are evoked to indicate the three parts of the soul. But the well known problem of what the ‘intermediary notes’ signify arises when Socrates mentions them in this passage. To answer it, Pelosi turns to what Socrates says in 612a3–5, where the soul is described by the word «πολυειδής» to indicate its complex structure with many aspects, thus perhaps recalling the *Timaeus* [188–189].

The last chapter ends by considering the structure of the world-soul in the *Timaeus* [190–195]. The harmonic division is the means by which the Demiurge builds the structure of the soul, giving to it the form of a musical scale [192–193]. After many other scholars, the author outlines the ‘extravagancy’ of such an anomalous extensive scale in musical theory and practice, but fitted to an elaborate cosmological plan where ‘musical mathematics’ are the principal instrument of elaboration. The connection with astronomy is resumed also [194].

The rational soul contains a complex articulation and it looks like an image of fragility, carrying the potential of mislaying its tuning, a potential that embodiment would actualize. To that judgment, the author objects that it is not only the lack of unity that makes the immortal *human* soul susceptible to disorder but the inferior quality of its elements that makes the contact with the corporeal dimension insidious and harmful.

In his conclusion, where he recapitulates the aims and the results of his essay, Pelosi ends with the idea that if Plato seems to be aware that complex interactions between psychic and corporeal movements exist, he gives no definitive explanation in the dialogues of how these interactions are possible. We must content ourselves with an ‘eikos mythos’. Figurative and metaphorical elements are the only way left to describe an intermediate reality between the sensible and the intelligible. But this seems an unhappy conclusion, if it implies that the metaphorical elements should be squeezed out as the negligible residue of an impossible rational account of reality. After all, figurative elements are part of Plato’s writing and style that belong

to the phenomenal body-mind dimension (as much as music does), so they should be taken as a material on which the scholar reflects seriously.

Overall, Pelosi's book proves that music is a fruitful and innovative tool for researchers on Platonic questions. I hope that it will invite further exploration in a field remaining unfamiliar to many students of ancient philosophy. The introduction is helpful in establishing the author's main challenges and ambitions. Some undeniable difficulties and obscurities remain unsolved in the book (such as the theory of ἤθος and the preparatory sciences in *Rep.* 7) and the bibliography misses some more recent works that bear on the author's research. Despite those omissions, students and scholars will find profit in studying this essay for its relevant and often precise analysis of the relationship between reason and sensibility seen in the light of acoustical theory and music.

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