

Harmony in Greek and Indo-Iranian Cosmology

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The importance of Order to the Indo-European world-view has always been discussed in the light of Sanskrit *ṛtá*, with the Old Persian cognate *arta* (Avestan *aša*, Kent 1953: 170-171; Lüders 1959: 652-654): the Truthful Order from which all things arise and towards which all should aspire.¹ In its various forms and compounds, *ṛtá* occurs many hundreds of times in the *R̥gveda*; so powerful is the concept that Lüders (1951: 27) considered it the *Mittelpunkt* of Vedic religion, while both he and Benveniste (1973: 379-380) were confident that there had been a common Indo-European archetype. Polomé (1982: 156-172), more reserved, agreed that this is “attractive to project”.

Benveniste (1973: 379-380) cited the Greek *ἀραρίσκω* and several of its relations, including *ἁρμονία* (“a fitting or joining”), to demonstrate the productivity of PIE **ar-* (“to fit or join”), the root from which *ṛtá* also descends. Surprisingly, however, I have found no discussion of Indo-European Order which connects *ṛtá* specifically with the cosmological heights to which *ἁρμονία* was taken by certain schools of pre-Socratic thought. Curiously, however, the loan-words “harmony,” “harmonious” and “harmonize” are often used without further comment in descriptions of *ṛtá* (Gonda 1960: 79; Benveniste 1973: 380). This is symptomatic of a long and steady generalization of the term, a process already witnessed in Plato and Aristotle, though their usage is not unpurposeful—quite the contrary (Meyer 1932: 55-56; Lippman 1964: 1-43; Anderson 1966: 192-193). But for Heraclitus, Parmenides, Empedocles, and Philolaus, *ἁρμονία* was an important—

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perhaps the central—concept behind their various visions of existence and the cosmos. The full significance of *ἄρμονία* seems encrypted in Heraclitus 22B51, in which bow and lyre appear as paradigmatic:

οὐ ξυνιαῖσιν ὄκως διαφερόμενον ἑαυτῶ ξυμφέρεται
παλίντροπος (v.l. παλίντονος [v. infra]) ἄρμονιῆ ὄκωσπερ
τόξου καὶ λύρης.

They do not understand how that which diverges converges on itself: for *harmonia* is opposite-turning, like that of bow and lyre.

The bow/lyre association was already traditional, firmly entrenched in Greek epic (*Od.* 21.406-11; *h. Ap.* 131, *h. Merc.* 515); there are innumerable later examples in both Greek and Latin. The conceptual link between the hunting and musical bows—sharing the same principle of construction (Kirk 1954: 207-209)—probably dates to the invention of the one from the other. Which came first is debated—the two are anatomically akin in Greek vocabulary, sharing *πήχεις*, *κέρατα*, *ζυγόν* and string²—but the bow at least was already extremely ancient at the time of Indo-European unity. A shamanic totem in other cultures (Eliade 1958: 104; 1951: 174-175), the device could symbolize the pursuit of knowledge in Vedic thought (*RV* 1.84.16, 9.96.1, 10.42.1, 10.87.4), while the extended metaphor in the *Mundaka-upaniṣad* (2.3.4) is reminiscent of the chariot parables (see below). Similarly in early Greek poetry, archery could stand metaphorically for cognition and intellectual process (Pi. *I.* 5.46ff.; A. *Suppl.* 446; etc.: see Sansone [1975]: 7-10, 85).

Simple yet ingenious, the bow is a mechanical riddle, worthy of the divining powers of Apollo—for “this god is in charge of Harmony” (*ἐπιστατεῖ δὲ οὗτος ὁ θεὸς τῆ ἄρμονίᾳ*), a four-fold domain comprising music, archery, divination, and healing (*μουσική, τοξική, μαντική, ἰατρική*, Pl. *Cra.* 404e-405d; cf. Pi. *P.* 8.67-68; Call. *Ap.* 42-46; D. S. 5.74.5). According to epic formula, Apollo’s domain was “the lyre and bending bow” (*κίθαρις καὶ καμπύλα τόξα*, *h. Ap.* 131, *h. Merc.* 515). The

²The *πήχυς* joins the *κέρατα* of the bow (Hom. *Il.* 11.375, 13.583, *Od.* 21.419). In the lyre the *ζυγόν* usually joins the *κέρατα*, but this is also a *πήχυς* (Ath. 14.637d). The centerpiece of the composite bow may then be seen as a *ζυγόν* in function, if not in name.

string once connected, the bent arms attempt to diverge (*διαφερόμενον*) and release the potential energy invested by the bender; they are instead forced to converge (*ἔωυτῶ ξυμφέρεται*). The disparate parts thus joined, the bow emerges as a single and continually self-interacting whole, at once articulated and a continuum, limited and unlimited.³

A corollary of *ἁρμονία* was *συνέχεια*, the cohesion among individual elements which makes of them a ‘continuum’. The linguistic collocation appears as early as Homer’s description of jars “continuously joined along a wall” ([*sc. πίθοι*] *ἔξειης ποτὶ τοῖχον ἀρηρότες*, *Od.* 2.342). The same idea is implicit in city walls ‘articulated’ by gates or towers (Hom. *Il.* 15.737; *Od.* 7.44-45). In a passage which again juxtaposes *ἔξειης . . . ἀρηρώς*, Hesiod’s ‘harmonic’ gates marked the boundary between the Titan realms and the world of gods and men (*Th.* 807-814). *συνέχεια* next appears in Pindar’s *κίων δ’ οὐρανία συνέχει*, of the “celestial column” (Atlas) which “holds together” the world (Pi. *P.* 1.19). Pindar stands at the poetic juncture between the epic diction of Hesiod and the technical terminology of Parmenides, for whom the Just and Truthful Sphere was “one, continuous” (*ἓν, συνεχές*, 28B8.6, cf. 22-25), while for Empedocles the “wheel-shaped Sphere is fastened in the close secrecy of Harmony, exulting in its delightful Oneness” (31B27). Thence *συνέχεια* survived into the modern vocabulary of Aristotle, who defined it as “for things which are touching each other, when the boundary of each is one and the same, and (as the word indicates) is ‘held together’” (*ὅταν ταῦτὸ γένηται καὶ ἐν τὸ ἑκατέρου πέρασ οἷς ἄπτονται καὶ ὡσπερ σημαίνει τὸ ὄνομα*) *συνέχεται*, *Ph.* 227a10-17).

The perfect exemplar of *συνέχεια* was thus the circle, in which beginning and end are identical (ps.-Arist. *Mech.* 848a6ff.; cf. Heracl. 22B103, Parm. 28B5). Conversely, any system which shows a closed, continuous interplay between its parts can be understood in terms of circular dynamics. Thus the bow may be described exactly as a feedback loop, “a circular arrangement of causally connected elements, in which an initial cause propagates around the links of the loop, so that each element has an effect on the next, until the last ‘feeds back’ the effect into the first element of the cycle” (Capra 1996: 56). As Capra discusses in his imaginative manifesto of holism, the

³On the mechanics of the bow, see Cotterell and Kamminga 1990: 180-187.

feedback-loop has been important to cybernetic theory, since it presents the self-governing system in its most schematic form. In contrast to positive or self-augmenting loops, such as audio feedback and other forms of the vicious circle, the bow is negative, with self-correction creating a stable equilibrium.⁴ (There is also an important application of *συνέχεια*, a s formulated by Aristoxenus, to the diatonic musical circle, known in Mesopotamia since the Old Babylonian period, and appearing in the Aegean at the height of Neo-Assyrian expansionism [Franklin forthcoming]).

Harmony then is not simply the *absence* of conflict, but a conflict which, in neutralizing itself, gives rise to a productive reconciliation. The dynamics of a complex system in a state of harmonic equilibrium may be reduced to the dualism of conflict and reconciliation; at the same time, the harmonic equilibrium itself may be regarded as a unity; in the words of Heraclitus, “from all comes one and from one come all” (*ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα*, 22B10; cf. 22B50, Emp. 31B17.1-2). Earlier still in the Greek philosophical record, duality played a role in the cosmology of Anaximander (Arist. *Ph.* 187a20; Simp. *in Ph.* 24.21); though a concern with *ἁρμονία* does not appear from the scanty notices, the dualism of harmony is found already in Hesiod’s family portrait of Harmonia as the daughter of Ares and Aphrodite (*Th.* 933-937). This archetype was variously transmuted by the pre-Socratics as Neikos and Philotes (Strife and Love), *ὄλεθρος* and *γένεσις* (destruction and creation/becoming), *πόλεμος* and *εἰρήνη* (war and peace), and so on (Heraclit. 22B67, Emp. 31B17.7-8, 19-20, etc.). Harmonic duality is also found in the doctrine of like and unlike (limit and unlimit?) united by *ἁρμονία* to create the cosmos, first clearly attested in Philolaus (44B6), and with a parallel in Parmenides (28B8.26-27, 30-31, 42-49).

⁴ This essential circularity of the harmonic bow may add some weight to the variant *παλίντροπος* over *παλίντονος* in Heraclitus 22B51. Since *παλίντονος* is a common Homeric epithet for the bow, and since Heraclitus’ examples are both stringed instruments, the substitution of *-τονος* for *-τροπος* is predictable. Yet the harmonic principle is exhibited in many other devices, a situation better suited to the more general *-τροπος*. For the textual issue see Kirk, Raven, and Schofield 1983: 192 n.1 (with further literature) and Kirk 1954: esp. 207-208, both supporting *παλίντονος*. The description of Heraclitean thought at D. L. 9.7 (*διὰ τῆς ἐναντιοτροπῆς ἡρμόσθαι τὰ ὄντα*, “the things which are, harmonized through ‘opposite turning’”), has not been given sufficient weight.

The bow is also the original battery. The exertion of stringing the bow is captured and stored as potential energy (Cotterell and Kamminga 1990: 180). This reservoir is amplified by the further force required to draw an arrow. Now in a state of unstable equilibrium, energy is transferred to arrow when the string is released, and the instrument returns to stable, charged equilibrium. With its quivering string, the bow is in a sense alive, whence perhaps Heraclitus' punning "the bow's name [*βιός*] is life [*βίος*], but its work is death" (22B48).

The living bow was a very simple, ancient, and striking example of a transcendent whole, the parts of which are caught in a continuous, circular interplay—mutually causing what has been called in whole-systems theory an 'emergent property', a subject of much current interest in the science of complexity.⁵

The Greeks' recognition of 'emergence', implicit in many pre-Socratic fragments, is quite clear in Heraclitus' "from all comes one and from one come all" (22B10, cited above). Yet being so fragmentary, none of pre-Socratics are found to state the case so openly as the remarkable definition of Philoponus (*in de An.* 142.6-16 [Hayduck]):

*ὅτι ἡ ἀρμονία ἐπιγίνεται τοῖς ἡρμωσμένοις . . . οὐ μάχεται
δὲ τοῖς ἡρμωσμένοις, ἀλλ' ἔπεται οὕτως ἔχουσα, ὡς ἂν ἔχη
τὰ ἡρμωσμένα.*

Harmony supervenes (*ἐπιγίνεται*) on things that have been harmonized (*τοῖς ἡρμωσμένοις*) . . . And the Harmony is not in conflict with its harmonized components (*τοῖς ἡρμωσμένοις*), but follows upon them; and whatever the nature of the harmonized components, such is the nature of the Harmony.

There is circular logic in having *ἀρμονία* "supervene" or "born upon" (*ἐπιγίνεται*) "things which have been harmonized"; the perfect passive *τοῖς ἡρμωσμένοις* logically

⁵The real shock of twentieth-century science has been that systems cannot be understood by analysis. The properties of the parts are not intrinsic properties but can be understood only within the context of the larger whole. Thus the [*sc.* Cartesian] relationship between the parts and the whole has been reversed . . . Living systems are integrated wholes whose properties cannot be reduced to those of smaller parts. Their essential, or "systemic," properties are properties of the whole, which none of the parts have" (Capra 1996: 29-30, 36).

requires a prior action of harmonizing, which should itself be *ἁρμονία*. That is, the transitive and intransitive aspects of this verbal noun (see Meyer 1932: 7-8; cf. Anderson 1966: 193) are exploited in a syntactical illustration of mutual causation and the causal loop. In effect, Harmony appears precisely when the individual parts are harmonized, no sooner and no later—a goddess whose epiphany is the spontaneous genesis of meaningful Order. In his cogent technical definition, Philoponus echoes Philolaus (44B6), for whom Harmony likewise supervenes (*ἐπεγένετο*) from some unfathomable source above and beyond the parts which it binds together (cf. Huffman 1993: 138-141).

Every individual harmonic part—each joint or *ἄρθρον* (< **ar-*)—exists as a definite point in the whole system, and each is linked to the next by and producing *συνέχεια* or continuity. At the same time, each is sundered from its neighbors by the infinite, continuous supervenience which together they produce. This is vividly illustrated by the continuum of whole numbers—the Greek *ἀριθμοί* (< **ar-*)—each self-sufficient and integral, but the space between each unbridgeable by Zeno’s paradox. Other important articulations include that of the human skeleton by *ἄρθρα* (“joints”), and the division of time into “period, season, settled sequence, order” (Macdonell 1924: 52), the radical sense of Sanskrit *ṛtū* and Latin *ritus* (< PIE **ar-*)—in both of which a sacred treatment of Harmony is implicit.

To the pre-Socratics, Harmony was not metaphor, drawn from a colorful mythological figure of simple poetic parentage—the usual explanation of the goddess’ relation to philosophical *ἁρμονία*.⁶ It was a physical and metaphysical phenomenon worthy of divination, only later transmuted as *physiologia*, an intriguing phenomenon of which the goddess herself was but one ancient expression. This earlier, less ‘rational’ treatment of Harmonic speculation finds its diapason in the unmistakably hieratic tone of Heraclitus, Parmenides, Empedocles and even Philolaus. This is the “curious borderland” of the early thinkers, “still under the spell of an undissolved relationship between man and nature” (Frankfort *et al.* 1946: 377).

⁶ Studies of Harmonia as a mythological figure are: Rocchi 1989; Paribeni 1988; Jouan 1980: 113-121; Vian 1963 (though some of his assertions were shown to be untenable by Edwards 1979); Crusius 1886-90; Sittig 1912.

Unity, duality, equilibrium, circularity, the articulated continuum, mutual causation and supervenience: these are the radical attributes of Harmony. They formed the infrastructure of Empedocles' cosmic Sphere, where all things were created one from another in an endless cyclical alternation between Love and War, governing the synthesis and dissolution—entropy following (transitive) harmony—of the four elements (see especially 31B17.16-35). The supervenient (*ἐπιγίγνεται*, 30) property of this whole, closed system is the (intransitive) Harmony of the cosmos—Aphrodite Ourania, of whom Harmonia was an avatar, according to the secret teachings of the Derveni papyrus (*PDerv.* 21.5ff., see Laks and Most 1997: 9; cf. Hes. *Th.* 975; A. *Su.* 1039-1043; E. *Ph.* 7-9; Arist. fr. 24 [Rose]; Call. fr. 654; Theo Sm. 12.19-20).xxx

This vision of the world as a single harmonic entity resonates strongly with the Vedic formulation of Order. *ṛtá* can itself be the recipient of a praise hymn, but is more often cited in connection with the gods (principally Mitra-Varuṇa), whose power both derives from and serves to uphold it (*RV* 7.66.12-13): they are the “charioteers of *ṛtá* / following *ṛtá*, born from *ṛtá*, advancing *ṛtá*, awesome, despising un-*ṛta*” (*ṛtásya rathiyah || ṛtāvāna ṛtájātā ṛtāvīdhō ghoráso anytadvīṣah*).⁷ This peculiar paradox, one of *ṛtá*'s most distinctive features, is a striking illustration of mutual causation. *ṛtá* is a power which transcends and precedes even the gods—it is a god among gods (*RV* 1.75.5, 10.66.4, cf. Puhvel 1987: 99)—just as in the Empedoclean Sphere the gods, like men, are but offspring of the system (31B21); for Heraclitus neither god nor man made this Order (*κόσμον τόνδε*, 22B30), while Plato specifies that all matters human and divine are coordinated by virtue of Harmony (*Cra.* 405c). Likewise, *ṛtá* is remote and impersonal—or “depersonalized”, Polomé 1982: 164—but provides the ordered context in which all personal experience becomes meaningful. Thus love and creation have no more intrinsic value than war and destruction, and the consent of the sacrificial victim has nothing to do with a comedy of innocence: they come willingly in fulfillment of *ṛtá* (*RV* 4.23.9-10). All things play their part in the service of an Order which has produced them and which in turn emerges from them in a never-ending, self-feeding circle. Like the stable equilibrium of the bow and the reciprocal

⁷Text is Van Nooten and Holland 1994 (see ii for the conventions of metrical representation).

elements of Empedocles, *ῥτά* is a self-governing, self-balancing, cyclical system—and is in fact depicted as a wheel (*RV* 1.164.11, 9.70.1, 10.123.3).

The harmonic ideas of the ancient Vedic hymns to *ῥτά* resurface, among other places, in the early yoga texts. A “living fossil” (Eliade 1958: 361), yoga—literally “joining” or “yoking” (< PIE **ieug-*)—is now the sacred harmony-science *par excellence*. For the yoke or joint is the simplest device by which harmony may be established, unifying the divergent impulses of two things, and two things only, towards a single purpose. There are many examples in both Greek and Sanskrit of an intimate connection between the derivatives of PIE **ar-* and **ieug-*, and by extension between harmony generally and the yoke as its dualistic exemplar.⁸ In a number of Vedic songs we can see, through the yoke’s association with *ῥτά*—note for instance the close alliance in the word *ῥtayúgbhir* (“yoked by *ῥτά*”, 4.51.5, cf. 10.61.10)—both its harmonic nature and its near-equal potency in the cosmic metaphor (*RV* 1.84.16, 4.51.5)

In these and other songs, *ῥτά* is associated not only with the yoke, but individually with the various ‘articulations’ of the chariot, including, as we have seen, the charioteer himself (Lüders 1959: 457-461). *ῥτά* is the unifying principle which animates the parts into a single cosmic machine; at the same time the animated chariot is itself, as a whole, intended to represent *ῥτά* (*RV* 3.58.8; cf. *RV* 2.23.3, 3.2.8, 4.10.2, 6.55.1, 7.66.12, 8.83.3, 8.19.35.). Thus the poetic vision that emerges from these hymns is yet another study in mutual causation.

In the Linear B chariot and wheel tablets, where derivatives of **ar-* were prolific in the language of chariotry generally⁹, the same association of **ar-* and **ieug-* is found in the form *a-na-mo-*

⁸In addition to the Greek examples to be discussed, Hom. *Il.* 24.268-9 ζυγὸν . . . ἐν ἄρηρός (cf. *Il.* 18.275-276); Hsch. s.v. ἄρμονιης: συζεύξεως, ἀρμόζεται: συζεύγνυται. In Sanskrit, *yuj* may describe the harmonic connection of string to instrument, and, with its compounds, the various stages of fitting arrow to string, aiming and discharging (Macdonell 1924: 245-246)—i.e. the weapon’s changing harmonic states are matched by changes to the radical notion of “join”. Like **ar-*, PIE **ieug-* may describe articulations of time, as with Sanskrit *yugá*, used of generations or the cosmic ages. More generally *yóga* may be used of “order, succession” (Macdonell 1924: 247); similarly Latin *iugum* is used of a mountain ridge, i.e. joining peaks.

⁹The following forms are attested: *a-mo* (ἄρμο), *a-mo-ta* (ἄρμοτα), *a-na-mo-to* (ἀνάρμοστοι or ἀνάρμοτοι), *a-ra-ro-mo-te-me-na* (ἀραρμοτιμένα), *a-ra-ru-ja* (ἀραρυῖα).

to (= ἀνάρμοστοι), used of vehicles without their yoking apparatus, i.e. their ζυγόν (KN Sd 4409, KN Sf 4420). These examples provide an exact linguistic parallel to the Vedic relationship between yoke and ἡά, and are particularly valuable for the great antiquity of their testimony. Nor is this surprising given the Indo-European antiquity of cartwrighting (e.g., Polomé 1982: 158-159), and the persistence of the Indo-European conception of the “chariot of truth” (Watkins 1995: 16)—the ἄρμα δίκης of Simonides (fr. 11.12 [West]) and rátham ṛtásya of *Rgveda* 2.23.3.

In the technical set-piece describing Hermes’ invention of the yoke and its proper duality appear within the harmonic paradigm of the lyre, immediately dependent upon a derivative of **ar-*: “and he put in the arms, and joined a yoke upon them both” (καὶ πῆχεις ἐνέθηκ’, ἐπὶ δὲ ζυγὸν ἤραρεν ἀμφοῖν, *h. Merc.* 50). The relationship is found again in Lucian’s retelling of the episode (*DDeor.* 7.4), where πῆχεις γὰρ ἐναρμόσας καὶ ζυγώσας serves to gloss ἐπὶ δὲ ζυγὸν ἤραρεν ἀμφοῖν—establishing the close overlap of the two radicals **ar-* and **ieug-* in their Greek derivatives. Equally important, it demonstrates the Greek recognition of semantic unity among various descendants of **ar-*; the set of ἀραρίσκω and ἀρμόζω is extended by Empedocles’ use of ἄρθροις and ἄρθμια (and cf. *Hom. Od.* 5.248-9, 5.361-2). Such etymological figures are found in Sanskrit poetic diction from the Vedas onwards (Allen 1998: 11); here it is useful to cite *yogayuktātma* (“the soul yoked in yoga”, *BG* 6.29.3), considered further below. Since ἀραρίσκω was principally poetic in the historical period, it follows that the conditions of its survival in artistic diction had included an active awareness of its appropriateness in what may be seen as traditional, specifically harmonic *topoi* (see below).

Aphrodite was given a number of epithets deriving from **ieug-*, for example ζευκτικός and ζευξίγαμος (schol. *ad Opp. Halieut.* 4.156; *Cat. Cod. Astr.* 1.173). That these titles relate not merely to her role as the “joiner” in earthly love is made likely by the appearance of ζεύκτειρα in a hymn of the Orphics (*Orph.* 55.3) who, as mentioned above, identified her celestial avatar with Harmonia.

Finally, throughout the language family the skeleton was anatomized by derivatives of both **ar-* and **ieug-*. These roots may apply to the joints generally, as for example Greek ἄρθρον, Latin *artus* and English “joint”. They may also denote specific

connections: *ar- yields words for arm, shoulder or elbow in Germanic, Slavic, Indo-Iranian and Armenian, from *ieug- comes Latin *jugulum* (see further Buck 1949: 236-7).

An individual joint is an example of dualistic harmony; a series of such joints yields an articulated continuum, the overall harmony of the skeleton. Like the chariot, we are integrated wholes dependent upon but transcending a jointed frame. In this light, consider Empedocles' statement that cosmic Love, whose avatar was Harmonia, was held to be innate within mortal joints (*ἦτις καὶ θνητοῖσι νομίζεται ἔμφυτος ἄρθροις*, 31B4.22). If the animated world-machine may be represented by a cosmic chariot, the human body and mind/soul could be seen as animated by the same principle of cosmic joining, *γιά*. This analogy is in fact attested for both the Greek and Indian traditions in the celebrated parables of the body-soul as chariot (Pl. *Phdr.* 246a-257b, *Kaṭha-upaniṣad* 3.3-9.¹⁰ The remarkable similarity of these passages has often been noted, but unilateral influence has always been a problematic solution.

Yoga is a system of thought and bodily practice—at once art, science, religion and philosophy—which explores this 'junction' or 'yoking' of human and cosmos. The underlying concept has an Indo-European basis, best illustrated by the dismembering of the cosmic giant Puruṣa ("Person, Self") to create the world in *R̥gveda* 10.90. To the modern yogin, as to the ancient, the relationship is not metaphorical or a mere article of faith but, he thinks, established by millennia of research. We might find it hard to consider this a precise science, but Eliade (1958) showed how the topic might be treated on its own terms with no compromise of methodology. Jung (1936: 532) also accepted the general validity of yogic philosophy, seeing there another way to approach the science of mind or soul—*psychologia*—though he was reluctant to pass further judgement without the first-hand knowledge that informs Eliade's work. Macdonell (1924: 374) was less reserved (and less scientific) when he defined Haṭha-yoga—the "forceful" yoga whose postures (*āsanas*) are familiar to many—as "a kind of Yoga attended with great self-torture".

¹⁰In Plato, mind is the charioteer, the horses are emotion and appetite (approximately *τὸ λογιστικόν*, *τὸ θυμοειδές*, and *τὸ ἐπιθυμητικόν*). In the *Kaṭhāupaniṣad*, *ātman* (soul) is charioteer, *manas* (mind) is reins/bridle, and *indriyani* (senses) are horses. For further Indic versions, see Rawson 1934: 216-223; Allen 1998: 11, 18 n.11.

This bodily yoga might be profitably studied in light of the radical harmonic attributes discussed above. But this is best avoided here. The treatises which describe the postures in detail do not themselves venture into such territory, and are besides all very late.¹¹ By contrast, the *Bhagavad-Gītā* and the *Yogasūtras* of Patañjali¹² mention the *āsanas* only in passing. This has led some scholars to conclude that the postures of Haṭha-yoga were a secondary—some would say decadent—development (Eliade [1958] is a notable exception). Yet one can see the terse allusions to posture and *prāṇāyāma* (breath control) as indicating an integrated and very well-known aspect of the tradition, needing a simple acknowledgement, not extended discussion (*BG* 4.29, 6.11-14; *YS* 2.29, 46). In fact, the *Bhagavad-Gītā* reports that the tradition was already very ancient—Eliade (1958: 53) saw an ancestor of the yogin in the long-haired ascetics of the *R̥gveda*—and there is never any attempt to *exclude* postures and breathing from this history (*BG* 4.1, 3, 15; cf. *YS* 1.1, which also speaks of an earlier tradition). This accords well enough with Patañjali, who lists *āsanas* and *prāṇāyāma* before meditation and contemplation in the eight stages of yoga (*YS* 2.29). The postures would naturally be more suited to oral transmission, and in fact, as Eliade stressed (1958: 5, 53, 320; cf. Feuerstein 1989: 99-101), the yoga tradition has always been fundamentally initiatory in nature. Thus it is described in the *Bhagavad-Gītā* as a secret art (*BG* 15.20, 18.63-68, 75).

Be this as it may, the *Bhagavad-Gītā* is concerned with a different form of Harmony, the “yoking” of the individual soul (*ātman*) with the universal, of which it is but one among an infinity of parts (*BG* 9.7-8). He who does not have a “soul yoked in yoga” (*yogayuktātmā*) is tormented by the dualities of the material world, for the development of the *ahaṃkāra*, the “I-maker” or ego, creates the illusion of separation between subject and object (*BG* 3.27; cf. 12.13; 13.5, 8; 16.18; 17.5; 18.17,

¹¹The *Haṭha-yoga-pradīpikā* dates to the fourteenth century AD; the *Gheraṇḍa-Saṃhitā* (seventeenth century) is closely modelled on it. The *Śiva-Saṃhitā* is from the late seventeenth or early eighteenth century.

¹²The *Bhagavad-Gītā* is the didactic yogic dialogue of (perhaps) the fourth century BC between the god Kṛṣṇa and Prince Arjuna; text and translation: Edgerton (1946). The *Yogasūtras* are the classical codification of yoga technique in aphoristic form, dated variously between the third century BC and the second century AD; text and translation: Yardi 1979.

24, 53, 58-9). Through postures and meditation, the yogin identifies himself with the objects of perception and, realizing that all things derive from the One, becomes *nirdvandva*, “liberated from dualities” such as hot-cold, pleasure-pain, etc. (*BG* 2.45, 72; 5.3; 6.7-9; 15.5).

This is remarkably close to Heraclitus’ view that such dual pairs (e.g. hot/cold, new/old) must be understood as illusory refractions of comprehensive unities (temperature, age). The identification of something as for example, hot or cold depends upon one’s place within the whole system: seawater, for example, is healthy for fish, but harmful for humans (22B61, 22B88). Duality was an important characteristic of Indo-Iranian thought from the earliest times. Gonda (1953), for whom dichotomous argument was a prime characteristic of Vedic reasoning, saw archetypes in the Indo-European number system, and the ancestors of the *asvins*—the divine twins who are one of the most persistent of the Indo-European myth patterns, emerging in the *R̥gveda* as a pair of horses yoked to the cosmic, *ṛtá*-joined chariot. The later religious debate between dualism and nondualism is the concept of the one and many in yet another guise, with infinite gradation once again represented by two poles, exactly as in Heraclitus’ *ἐκ πάντων ἓν καὶ ἐξ ἓνὸς πάντα*.

In the *Bhagavad-Gītā*, Kṛṣṇa embodies key attributes of *ṛtá*. He is the source of all things, the one to their many (*BG* 6.29-31). Those dominated by the I-maker cannot see that they are comprehended by this oneness, following a path of darkness in their ignorance that the world originates in “mutual causation”—as Edgerton (1946) translated *aparasparasambhūtaṃ* (16.7-8). This concept is vividly illustrated by a chain of relationships organized in a causal circle or feedback loop (3.12-16), wherein the Many arise from the One, while the One is supported by the worshipful sacrifices of the Many:

annād bhavanti bhūtāni	Beings originate from food;
parjanyaād annasambhavaḥ	From rain food arises;
yajñād bhavati parjanya	From worship comes the rain(-god);
yajñaḥ karmasamudbhavaḥ	Worship originates in action.
karma brahmodbhavaṃ viddhi	Action arises from Brahman, know;
brahmā ’kṣarasamudbhavam	And Brahman springs from the Imperishable;

tasmāt sarvagataṃ brahma nityaṃ yajñe pratiṣṭitam	Therefore the universal Brahman Is eternally based on worship.
evaṃ pravartitaṃ cakraṃ nā ’nuvartayati ’ha yaḥ	The wheel thus set in motion Who does not keep turning in this world,
aghāyur indriyārāmo mogham partha sa jivati	Malignant, delighting in the senses He lives in vain, son of Prtha.

Compare the Sphere of Empedocles, in which Celestial Love or Harmony circles invisibly among the members of the system: “No mortal man has perceived her rotating among them” (*τὴν οὐ τις μετὰ τοῖσιν ἐλισσομένην δεδάηκε / θνητὸς ἀνὴρ* 31B25-26). *ῥά* is inevitably suggested by reference to the wheel, set in motion through the action of mutual causation, and sustained by the recognition of it. Those under the dominion of egoism—removing themselves from the loop—bring about the ruin of the world (*BG XVI.6-20*). *Mutatis mutandis*, the yogin’s ‘yoking’ of the individual soul to the World Soul is an integration and reintegration with *ῥά*. It is therefore no coincidence that, at the climax of his aphorisms, Patañjali says of the highest yogic state that “the insight therein is *ῥά*-bearing” (*ῥtambharā tatra prajñā*, *YS 1.48*)—echoing the Vedic expression *ῥāsya yōga* (*ṚV 3.27.11, 10.30.11*), the “harnessing of Truth” which characterized the mystic songs and transcendent prayers of the ancient priests (Lüders 1959: 460). *ῥtambharā* is itself suggestive of mutual causation in the ambiguity of its transitive and intransitive aspects: the insight might bring existing *ῥά* to the yogin, or might itself constitute the yogin’s regeneration of *ῥά*.

The yogic goal of bodily and spiritual balance is consonant with the Indo-European notion of ‘measure’ which surfaces as a cardinal attribute of the cognate ‘medical’ (< PIE **med-*) traditions (e.g. , Benveniste 1969: 399-406), and which is the essence of ‘meditation’. In Greece we find ideas of harmony applied extensively to the body, often (but not exclusively) in Pythagoreanizing sources as a concomitant to the belief that the mind or soul is simply the ‘attunement’ of the body—the Harmony which supervenes on its harmonized components (Aristox. fr. 120a, c, d; Hp. *Vict.*; Pl. *Smp.* 186a-189c; Theo Sm. 12.10ff.). Beyond the harmony of the skeleton, attested by Empedocles and elsewhere (*A. P.* 7.383 [Philip]; 7.472.7-8 and 7.480.1-2 [Leonidas]), the whole body was naturally regarded as

balanced and proportioned (Hp. *Vict.* 1.8; Aristox. fr. 121; Mart. Cap. 9.923; Boeth. *De inst. Mus.* 1.2 [188.27ff.]; etc.). The four humours, like the elements in Empedocles' cosmic sphere, were formulated as interlocking polar dualities each with a continuum of variation, the balance of which constituted the *ἁρμονία* of the body (Pl. *Phd.* 86b; ps.-Plut. *de Mus.* 1138d-e; Phlp. *in de An.* 145.1-4; Aët. 5.30.1; Boeth. *De inst. Mus.* 1.2 [189.3-5]; etc.). Empedocles was himself regarded as a doctor (*ἰατρός*), and composed a hexameter poem known as *Katharmoi* or "Purifications" (D. L. 8.58; Cels. *Proem.* 2.11; Gal. *Math. med.* 1.1), which undoubtedly developed his harmonic worldview in some such way. And of course the divine healer was Apollo, Plato's overseer of Harmony—the branch of *ἰατρική* including *καθαρμοί*. (Cheiron provides an interesting doublet.)

Were yoga and Greek harmonic philosophy cognate sciences, or at least sciences which embraced cognate patterns of thought? Various 'horizontal' factors might complicate the picture. Conger (1952), for example, set forth a number of convincing sympathies between early Greek and Indian philosophy. These he explained in terms of a general sixth-century enlightenment across a geographical continuum from Greece to India, mediated by the cultural hegemony of the intervening Persian empire, and giving rise to figures like Pythagoras, Zarathustra, and Gautama Siddhartha. As to the yoga postures, Eliade (1958: 101, 361, 353-358), in the absence of any clear Indo-European parallels, and on the basis of Harappan seals thought to depict shamanic figures in what appears to be 'lotus' position, argued that yoga derived substantially from pre-Aryan tradition.

These complications might be right, and others could be devised. But a simple horizontal model is no more self-sufficient than a vertical: one must look to syncretism, cultural feedback, and other means of approximating the complexities of intellectual development. Even admitting a substantial pre-Aryan basis to yoga, this would not preclude the unbroken development of Indo-European ideas in the tradition. Allen (1998) has argued convincingly that Arjuna's quest in the *Mahābhārata* is an allegory for the yogin's progress towards enlightenment. (On this hypothesis, the epic becomes a formal illustration of the relationship between *karmāyoga* and *jñānāyoga*, as presented in the programmatic *Bhagavad-Gītā*: see

below) Allen further suggests that structural sympathies between the *Odyssey* and the *Mahābhārata* reveal an Indo-European basis for—perhaps even a “proto-narrative” of—this spiritual journey in the guise of hero quest.

As to harmony, even if Indo-Iranians did adopt an indigenous art of skeletal rearticulation, this adaptation would have been conditioned, inevitably, by inherited ideas, since their own understanding of the skeleton had been formed, at least partially, within the semantic limits of harmony, as shown by the lexical evidence. A parallel for this continuous recognition of harmony is seen in the development of Indo-European material culture. Because much technology was based upon the principle of harmony, the extreme productivity of **ar-* and **ieug-* in these contexts is not surprising. **ar-* is associated with the plow and plowing throughout the language family with the exception of Indo-Iranian, while the yoke is universally derived from **ieug-* (Buck 1949: *s.v.*); in Greek and Sanskrit sources, both are found in the context of wheeled vehicles. Other devices whose names are not directly derived from the radicals may still be intimately associated with harmonic language: the lyre and bow, for example, designated by a variety of names with often obscure etymology, nevertheless remained the Greeks’ chief exemplars of the phenomenon. These roots, like our own words “fit” and “join”, are fundamental to the concept of the machine, which, embracing a wide range of technical knowledge, may be epitomized by the all-encompassing Latin *Ars* (“Art”). Harmony would have maintained an ever more elaborate grip on the imagination as technical knowledge advanced from one generation to the next, even at the ‘artistic’ level of the tripartite Dumézilian society.

As far as this division is valid, harmonic ideas seem further refracted between warrior and priest in both Greece and India. There were important applications of harmony to civic affairs, as with the Spartan *ἄρμοστής* or *ἄρμοστήρ* whose office it was to make subjected states and islands maintain orderly relations with their overlords (*Suda s.v.*; Hsch. *s.v.*); similarly, the *ἄρμόσυννοι* oversaw the proper conduct of Spartan women (Hsch. *s.v.*). Elsewhere the offices *ἀρτύνος* (-ας), *ἀρτυσίλαος* and *ἀρτυτήρ* are attested. The earliest occurrence of *ἄρμονία* in a non-material sense—coeval with its designation of mortise-and-tenon joints (Hom. *Od.* 5.247f., 361f)—describes a

mutually-binding pact between two warriors (Hom. *Il.* 22.255). The root also appears in a number of more or less aristocratic names, like Harmodius, including many where a concern with civic concord is evident.¹³ Some of these find close parallels in names derived from **ieug-*.¹⁴ But perhaps most noteworthy is the well-attested tradition of Terpander, summoned to Sparta at the behest of the Delphic oracle to restore to concord the city and the souls of its citizens (Gostoli 1988)—i.e. to reconcile the one and the many. This was effected, according to Diodorus, “through the Song of Harmony” (τῆς ἁρμονίας τῆ ᾠδῆς, D. S. 8.28 ap. Tz. *H.* 1.389ff.). Does this refer to some specific ritual repertoire, an ancestor perhaps of Empedocles’ *Katharmoi*? Terpander seems to have made something of a career out of such civic purification, and we hear of other musicians who did the same (Pratin. fr. 6 [PMG 713.3]; Diog. Bab. Fr. 84 SVF 3.232; Philodem. *Mus.* 1.30.31-35 [Kemke]; Plut. *Agis* 799f; ps.-Plut. *de Mus.* 1146b-c; Ael. *VH* 12.50; Boeth. *De inst. Mus.* 1.1 [185.16ff.]). Perhaps Apollo’s oracle, as mouthpiece of the harmonic medical god, acted as a sort of dispatch agency. These are surely what Empedocles intended by “fitting deeds” (ἄρθμια ἔργα) carried out by virtue and in fulfillment of Celestial Love or Harmony (31B17.23).

The distinction between ‘harmonic deeds’ and ‘harmonic philosophy’ is paralleled in the Indic tradition by *karmāyoga* and *jñānāyoga*—yoga of action and yoga of knowledge—a division which was already ancient when first attested in the *Bhagavad-Gītā* (Edgerton 1946: 2.62-69). Kṛṣṇa presents the less esoteric *karmāyoga* as more useful to the practical prince Arjuna—archer and chariot lord. This philosophy called for worshipful actions which would perpetuate the Wheel of Mutual Causation (*BG* 3.14.4), just as ἄρθμια ἔργα appear within Empedocles’ Sphere. With the harmonically-titled nobles of Greece one may compare the frequent appearance of *arta-* in Old Persian

¹³ Ἄρμοξίδαμος, Ἄρμοσίλαος/-λας, Ἄρμόδαμος, Ἄρμόλαος, Ἄρμόδικος. Many other names are attested, including Ἴππαρμόδαμος, Ἄρμόξενοσ/-α, Ἄρμονόα, Ἄρμοδία, Ἄρμονέα, Ἄρμόνιος, Ἄρμονίδα, Ἄρμονίς, Ἄρθμιάδης, Ἄρθμων, Ἄρθμονίδης, Ἄρμόνικος (a popular Spartan name). See further Fraser and Matthews 1987-2000.

¹⁴ Ζευξίδαμος, Ζευξιπίδης, Ζεύξιπποσ/-α/-η, Ζευξᾶς, Ζευξιθεα, Ζευξίμαχος, Ζεύξις (recall the famous artisan), Ζευξῶ. See further Fraser and Matthews 1987-2000.

aristocratic names, as well as Artaxata, a royal city in Armenia.¹⁵ Artavardiya, “Doer of *Arta*”, closely parallels ἄρθμια ἔργα and *karmāyoga*. Such names, especially Artaxerxes (“Kingdom of *Arta*”), a quasi-religious title adopted by several kings upon their succession, exemplify clearly the Ruler’s Truth aspect of Indo-European Order—the “active intellectual force, verbally expressed, which ensures the society’s prosperity, abundance of food, and fertility, and its protection from plague, calamity and enemy attack” (Watkins 1995: 85). Two related Old Persian words are recorded in Greek sources: ἄρτιάδες, “the just”, and ἄρταῖοι, “heroes” (Hellenic. *FGrH* 4F60; Hdt. 7.61; Hsch. s.v. ἄρτιάδες)—akin to OP *artāvan*, Av. *ašāvan* and Skt. *ṛtāvan*, “following Truth” (Kent 1953: 171). Much earlier the names Artatama and Artashumara are attested among the Hurrian kings in the fourteenth century BC, alongside the worship of Mithra (Huart 1976: 82; Puhvel 1987: 40-41). It is not known how these Indo-Iranians came to be in the royal house of Mittani, but it is of great importance for demonstrating the ancestral and sacred character of the later Persian names.

As to the Harmony of the priests, *ṛtā/arta* and ἁρμονία occur at different points on diverging cultural vectors, and yet overlap semantically to a significant extent due to the very fact of their common lexical inheritance. Heraclitus, Pythagoras, Parmenides, Empedocles, and even Plato (with his secret, unwritten doctrines) may all be regarded in some sense as latter-day priests. The harmonic element of their thought has roots in the Dark Age and beyond. Homer knew the paradigm of bow and lyre. Other epic treatments of the subject include the myths of Amphion and Orpheus, the lyre scene in the Homeric *Hymn to Apollo* (182-201), and the ‘prophetic lyre’ in the *Hymn to Hermes*. Most striking is the Song of Demodocus (*Od.* 8.266-369), which describes the adultery of Ares and Aphrodite—Harmonia’s Hesiodic parents (Rocchi 1989). This passage contains many harmonic details, one of which, βητάρμονες, almost certainly goes back to the Bronze Age, sharing the same vocalization of *η* as *o* and not *a* (Ruijgh 1961:

¹⁵These names, both male and female, include (in Hellenized form) Artabanus, Artabates, Artabazus, Artachaeus, Artaeus, Artageses, Artanes, Artaphernes, Artasyras, Artavasdes, Artaxias, Artaycten, Artaynte, Artembares, Artobazanes, Artochmes, Artontes, Artoxerxes, Artozostren, Artubios, Artuphios, Artustone. See further Justi 1963.

204-206) which reveals the Mycenaean pedigree of *ἁρμονία*.¹⁶

It is important then that the name “Homer” itself may derive from **ar-*, understood in light of the “builder of words”, a celebrated Indo-European conceit (Nagy 1979: 297-300). Harmony is recognized as apposite to the intellectual and verbal process by Homer (*Od.* 4.777; cf. Epich. fr. 250 *CGF*), the epic word *ἄρτιεπιής* (“fitting of word”) corresponding closely to Sanskrit *ṛtávat* (“speaking Truth”), and used by Pindar of the poet’s “word-joined tongue” which can discharge verbal arrows (*I.* 5.46ff.). Whether or not she was so-named by Hesiod (West 1966: 32 and *ad* 76ff.), the Muse Ourania, as one daughter of Mnemosyne, the deification of the singers’ Memory¹⁷, suggests a very ancient practice of cosmological speculation originally independent of, if later transformed by, Near Eastern thought. Indeed, one very old tradition which rivals Hesiod, represented by Alcman and Mimnermus (on the authority of Aristarchus), made the Muses, or sometimes simply The Muse, the daughters not of Zeus but of Ouranos (Alcm. fr. 67 *PMGF*; Mimn. fr. 13 [West]). If Ourania, Aphrodite Ourania and Harmonia may be regarded as mutual avatars (see above), the cosmological aspect of the Greek wisdom tradition becomes closely connected to ideas of Harmony. The especial importance of this domain is further suggested by Euripides’ curious description of Harmonia as the actual mother of the Muses (*Med.* 830-44), where the substitution of Harmonia for Mnemosyne has the effect of equating the single subject of Harmony—comprising *μουσική*, *τοξική*, *μαντική*, and *ιατρική*—with the singers’ wisdom tradition as a whole.¹⁸

These facts hint at a very ancient hieratic tradition, roughly synchronous both with the *ṛtá*-lore of the Vedic priests and the Indo-Iranian royal *arta*-names among the Mitanni. It seems necessary then to suppose, from at least the time that these branches were in contact with each other, a continuous and devoted contemplation of Harmony as an intriguing subject of

¹⁶ The lack of aspiration—i.e., not the expected **βηθάρμονες*—indicates that the compound was either formed within the Mycenaean period (Heubeck, West and Hainsworth 1988: *ad loc.*), or was very late with Ionic psilosis; but the vocalization of the sonant nasal as *o* confirms the Mycenaean origin.

¹⁷ In some parts of Greece the Muses were known simply as “the memories”: Plut. *Quaest. Conviv.* 743d *ἐνιαχοῦ δὲ καὶ πᾶσας . . . τὰς Μούσας Μνείας καλεῖσθαι λέγουσιν*.

¹⁸ The ambiguous syntax has prompted the interpretation that it is the Muses who generate Harmony; but against this see Most 1999: 20 n.1.

study by those whose concern it was to understand and explain the physical and metaphysical world—whether at this period it is better to call them priests and poets than scientists or philosophers. If “Heraclitus’ thought possessed a comprehensive unity which ... seems completely new” (Kirk, Raven and Schofield 1983: 212), it is because one is seeing only the iceberg’s shining tip. Epic poetry, in the narrow sense of heroic songs, was not the only, nor perhaps even the most ‘important’, facet of the Greeks’ oral wisdom tradition. It is surely not mere anachronism that made Xenophanes, Parmenides and Empedocles compose dactylic poetry—so too the Orphic verses and Delphic oracles—while Heraclitus favoured at times a curiously metrical prose that might be justly described as *carmen solutum* (ἔγραψε πολλὰ ποιητικῶς, *Suda* s.v. Ἡράκλειτος). That the *Katharmoi* were in the repertoire of the rhapsode Cleomenes (Ath. *Deipn.* 620d) requires a broader conception of the ἀοιδός, and places Empedocles in a long line of musical healers going back to Pythagoras, Terpander and beyond. Orpheus, the archetypal singer, was also regarded as prophet, priest and healer (Kern 1922: 25-31)—the full domain of Harmony, less the bow (the traditional pairing of lyre and bow perhaps reflecting the division of Harmony between priest and warrior). Proverbs and riddles comprise a very ancient genre of oral wisdom ‘literature’ (Lord 1991: 22). Heraclitus was remembered as σκοτεινός (“shadowy, obscure”, *Suda* s.v. Ἡράκλειτος) and αἰνικτήης (“the riddler”, D. L. 9.6); his fondness for paradox and opposite pairs (22B10, 51, 59-61, 67, 88, 111) recalls the duality riddles of *R̥gveda* 1.164.38 and the bipolar demonologies of the *Avesta*. Gonda (1973: 15) held that this “almost omnipresent tendency to dichotomous thought” was in fact characteristic of “methods of arguing and reasoning” which were not merely older than the *upaniṣads* but ultimately Indo-European.¹⁹

What Gonda saw for India seems equally valid of Greece. Like the secret language of the Vedic priests, Heraclitus’ vatic pronouncements might reflect a type of data compression

¹⁹“It is another piece of evidence of a process of a larger compass: the ancient Indian thinkers, scientists, philosophers have not rejected the elements of the traditional, so-called (semi-) primitive or rather ‘pre- or non-modern’ ways of thinking—of the ‘generally human pattern’—but have integrated them and made them the foundation of their highly developed methods of argumentation and philosophical systems” (Gonda 1973: 17).

ideally suited to the oral transmission of rather sophisticated, even highly sophisticated, physical and metaphysical ideas. The date of attestation is illusory. Even in the later fifth-century, the comic poet Cratinus praised the power of memory over that of letters (fr. 128 K-A). Homer's 'philosophical' contemporaries may have felt that the new technology of writing was an unneeded or unworthy intruder in their domain. "The reserved attitude of the Indo-Europeans was translated in their piety by a set of interdictions ... their tradition was transmitted orally, and after some of them acquired the skill of writing, a taboo was maintained against putting down in writing their religious lore" (Polomé 1982: 166-167). Thus Caesar describes the sacred injunction against writing among the Celtic druids/bards (*B Gall.* 6.13-14). Edgerton (1946: 2.62-69) held that the *Bhagavad-Gītā* had secularized an ancient esoteric tradition. Likewise, Orphism shows an interest in many of the same elements—including Harmony—treated more publically, but often no less cryptically, by the early pre-Socratics. So too Terpander's Song of Harmony is described as "mystic" or "initiatory" (*A. P.* 2.111-16 [Christod. Ecphrasis] *μύστιδα μολπήν . . . μυστιπόλω φόρμιγγι*). One sees here, just coming into the light of written documentation, several prongs of a very ancient and multivalent wisdom tradition, doubtless subjected to Orientalizing influence at various stages, but equally protecting inherited ideas. The poems of Parmenides and Empedocles, as befits their aedic character, blaze an intellectual trail without casting off the store of wisdom amassed by their forbears. Parmenides hints at his predecessors' untold travels when he speaks of following the *ἄμαξιτός*, or well-worn carriage-way (28B1.21)—a common metaphor for the poetic journey (*Pi. P.* 4.247-251, *N.* 6.53f., *Pae.* 7b.11-20; cf. *Emp.* 31B133). Thus these poets appear at once both more advanced and more archaic than their literary contemporaries.

Insofar as this stream of thought was concerned with Harmony, it is tempting to regard its initiates in the Greek tradition as the true Harmonists (*ἁρμονικοί*)²⁰—of whom Homer may be the first historical representative—and see them in some sense as a cognate 'profession', however distant, to those Vedic priests who upheld *ṛtá* with their 'fitting rites', and ultimately to the "*ṛtá*-bearing" yogin. Though I have restricted

²⁰ As against those who dealt only with mathematics or music, described by Aristoxenus as "the so-called Harmonists" (*Harm.* 40).

my scope to evidence connected with the development of **ar-* and **ieug-*, clearly ideas of Order may be detected much more broadly in the Greek and Indo-Iranian sources. But since Order must, by definition, be an element of any cosmology, a specifically Indo-European treatment can only be detected through examples of linguistic continuity, since this most securely guarantees common semantic inheritance. Harmony, not strictly synonymous with Order, is most intimately connected with the radicals considered here. All the essential attributes exalted to cosmic status by the pre-Socratics are predicted in the epic use of harmonic language, which reveals deliberate deployment and poetic manipulation. This alone is enough to show that philosophical *ἁρμονία* did not begin with the late allegorization of a marginal mythological figure: the lexical correspondences are too numerous, exact and deeply-rooted. To account for this continuity between the semantic field of **ar-* and the elaborate constructions of Empedocles, one must admit Harmony as a very ancient poetic *topos* of cosmological significance. Benveniste did not overstate the case when he called Order “the foundation, religious and moral”, of Indo-European society. I would merely clarify that the formulation of this cosmology in the Greek and Indo-Iranian branches—and quite possibly in a common Indo-European prototype—was enriched by a fascination with the phenomenon of Harmony.

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