

Psychology and the inculcation of virtue in Plato's Laws

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I. A PUZZLE ABOUT PHYSICAL EDUCATION

Although Aristotle says that Plato's educational recommendations in the *Laws* are pretty much the same as in the *Republic* (*Politics* II.6.1265a6–8), one striking difference in the *Laws* is its emphasis on a lifelong regime of gymnastics or prescribed physical movement: the Athenian says that pregnant mothers are to take exercise so that the fetus they are carrying is moved about (789a–93e); from the age of three to six, children must play at wrestling and dancing (814e–16e); thereafter, they are to dance (as well as sing) in the chorus of the Muses until the age of twenty, when they graduate to the chorus of Apollo (664c), in which they participate until they reach old age and retire to the chorus of Dionysus (653d, 665a, 666b, 670b, 812b–c). They also train in fighting (813d–e). But what is the value of all this physical activity? The answer to this question is surprisingly elusive, and trying to answer it takes us to the heart of the psychology of Plato's late dialogues.

Let us begin with two passages in the *Laws* that suggest a direction for our investigation. In the first, the Athenian is commending the practice of rocking distressed babies to calm them.

whenever mothers want their children to sleep when they are having trouble falling asleep, they bring to them not rest but, the opposite, motion, always shaking them in their arms, not in silence but with a song, exactly as if they were charming their children with flute-playing as in the cures of ecstatic Bacchics, using this dance of motion and the Muse ... Both these affections [viz. the crying child's and the Bacchics'] are fear, and fear comes through some bad disposition of the soul. So when someone brings to such affections shaking from without, the

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movement from without overpowers the internal fearful and manic motion, and having conquered it, having brought calm and rest to appear in the soul after the beating of the heart had become difficult, which are wholly welcome, makes the one group [viz. the children] partake of sleep. (790d5–91b6)

The Athenian goes on to say that eliminating fear by rocking is training for courage (*askêsis andreias*: 791b7–c2), for otherwise a child would grow up accustomed to feeling fear and so would become a coward. Yet elsewhere, the Athenian says that fear involves the expectation of evil (*Laws* 646e). If this is so, how can it be fear that the rocking alleviates in the baby? Alternatively, if a rocking motion can rid us of an expectation of evil, what are the limits to the psychological attitudes that physical movement can produce: can I learn propositions in astronomy by running in circles?

The second passage follows a claim that pleasure and pain are “children’s first education, in which virtue and vice first arise in the soul” (653a).

The present account says that every young animal is so to speak unable to be at rest either in body or voice; but always moves and seeks and cries out, some jumping and leaping so as to dance with pleasure and play, others crying out all kinds of sound. While other animals do not have perception of order or disorder in motions, which are named rhythm and harmony, the gods have given to us, as companions in dance, perception with pleasure of what is rhythmic and harmonious, by which we both move and lead choruses, connecting with one another by means of songs and dances. (653d–54a; cf. 664e)

So the part of physical education consisting in dance teaches us to take pleasure in order – the order of rhythm and harmony – and thereby helps us on the way to virtue, somehow. But how?

Before I offer my own account of what physical education does toward making us virtuous, let me briefly explain why the answers available in the current scholarship are not fully satisfactory. Morrow (1960) begins by noting that the *Laws*’ program of gymnastic education is built on the theory that human beings take pleasure in orderly movement (p. 305, referring to 653d–54a, quoted above). However, Morrow goes on to assimilate dance to music, and so to conceive of its value to us in terms of its contribution to virtue through the imitation of action, emotion, and character (p. 307). As for training in fighting and non-musical athletics, Morrow says that Plato wishes to de-professionalize it so that it serves its original goal of preparing citizens for war (pp. 332–3, 351). In the end, Morrow makes little of the *Laws*’ arresting claim about our enjoyment of orderly movement.

Laks (1990) suggests that dancing is the *Laws*’ answer to the problem of how to produce the harmonious condition of virtue in the soul and

in the city when both contain within them unruly elements – at least some appetitive desires in the case of the soul, and the *dēmos* in the case of the city (p. 220). This is because dancing can produce harmony between reason and unruly pleasure (pp. 227–8). But this suggestion needs working out: what is it about dancing that makes it capable of harmonizing pleasure and reason? What is the character of pleasure and of reason that they can be harmonized thus? What is the nature of the harmony that it requires lifelong reinforcement, especially from gymnastics?

Bobonich's (2002) account of the role of pleasure in education offers deeper answers to our questions about physical education's value. According to Bobonich, pleasure,¹ or at least the pleasure relevant to education, is a perception of order, fineness, and goodness, beginning with the human being's intelligent perception of order in the movements of physical education (pp. 359–60). This pleasure-in-order is continuous, in terms of cognitive content, with the pleasure taken in the fineness and goodness of moral actions expressive of virtue (pp. 363–5). According to Bobonich, this continuity in cognitive content is possible because in the late dialogues, non-rational psychological attitudes must draw on the – more or less educated – resources of reason for their cognitive content, because the non-rational soul-parts can contribute only non-conceptualized affections (Bobonich calls this the “cognitive impoverishment” of the lower parts of the soul; pp. 259–67). And this conception of the soul-parts' respective contributions reveals the late dialogues' rejection of the *Republic's* conception of the soul as composed of three “agent-like” soul-parts, each of which is capable of motivating action on its own. (A crucial consideration for rejecting the agent-like conception of soul-parts is that such parts undermine the unity of the subject, a consideration which, Bobonich points out, Plato makes use of when he argues that perception requires a unitary subject which sees through, rather than with, the various sense-organs (*Theaetetus* 184c–e). Bobonich's account of the psychology of the late dialogues requires him to read the likely-late *Timaeus* as exaggerating the agent-like character of the soul-parts in order to make manifest the reasons to reject the *Republic's* conception of the soul; pp. 295–8, 316–31.)

¹ Pleasure construed narrowly is a perception and hence a non-conceptualized psychic movement, but construed broadly is an appearance, a “mixture of belief and perception,” which includes interpretation and so is representational and has conceptual content (Bobonich 2002: 354). The conceptualizing requires the resources of reason, and so a pleasure can attend to different features of a perception, be more or less discriminating, and so on (p. 355). Pure pleasures, including pure sensory pleasures, don't depend for their pleasantness on a contrast with pain, but consist in appreciation of the fine-making properties of objects (p. 356).

In my view the point of the agent-like conception of soul-parts is protreptic rather than explanatory,² and so I do not regard the acceptance or rejection of the agent-like conception as a watershed for Plato's psychology. But in any case, I will argue that in the *Timaeus* the motivational sufficiency of the non-rational soul-parts (a key element in agent-likeness) is part of our design. I will make the case for this in section 2, where I will also explain how the *Timaeus'* (*Republic*-like) account of the tripartite soul articulates with the *Laws'* and *Timaeus'* characterization of psychological attitudes as motions. In section 3, I will argue that the main insights of Bobonich's account of how the pleasure in orderly movements of physical education contributes to the development of virtue are compatible with a soul that has agent-like parts.

2. THE PSYCHOLOGY OF THE *TIMAEUS* AND *LAWS*

To begin, since my ultimate concern is the *Laws*, I should say why I think it hermeneutically defensible to draw as heavily on the *Timaeus* as I will do. The *Laws* contains only two substantial discussions of the soul: one identifying the soul's motions with mental attitudes (896e ff.), and one likening the forces in the soul to the strings that pull a puppet (644c ff.). The first of these quite clearly helps itself to a conception of the soul dealt with more explicitly in the *Timaeus*; the second, as I will argue at the end of this section, is compatible with the *Timaeus'* conception, but, since it is concerned with illustrating the differences between the developed states of incontinence, continence, and the virtue of self-control, is not as helpful for understanding the process of education. Let us then consider this excerpt from the first of the two discussions in the *Laws*:

[T]he soul moves (*agei*) everything in the heavens and on earth and in the sea by means of its own motions, the names for which are wish (*boulesthai*), inquiry (*skopeisthai*), care (*epimeleisthai*), deliberation (*bouleuesthai*), true and false belief (*doxazein*), pleasure and pain (*chairousan lupoumenên*), boldness and fear (*tharrousan phoboumenên*), hatred and love (*misousan stergousan*), and by means of all, however many of these are kindred or primary motions that take over the secondary motions of bodies, moves all things to increase and diminish and separate and mix. (896e–7a)

The Athenian is in the process of arguing that the soul is prior to the body, on the grounds that the soul's self-motion must be prior to any motion of

² On the protreptic value of the account of the soul as consisting of three personae, see Kamtekar (2006).

the body, which is always moved by something else. In this passage, he identifies the soul's motions with mental attitudes. He goes on to describe the motion involved in intelligence or reasoning (*nous*): this motion is uniform rotation around a fixed center (i.e., it always thinks the same thoughts about the same things), and it contrasts with unreason, the motions of which are irregular and wandering (898a–b).

In identifying psychological attitudes with motions, the Athenian is here clearly drawing on a conception of soul developed in the *Timaeus*. Psychology in the *Timaeus* is a part of physics or the account of the natural world; integrating psychology into physics also requires integrating the soul as subject of cognition and bearer of moral value with the soul as source of motion and animator;³ Timaeus accomplishes this integration by identifying cognition with motion.

Like the Athenian, Timaeus describes the rational and immortal soul as thinking in circular orbits (37a–c). Timaeus adds that the World Soul contains the whole cosmos and moves the heavenly bodies in their circular orbits: it moves the fixed stars in the perfectly uniform Circle of the Same, which moves the planets, the sun and the moon, in the seven Circles of the Different (36d–e).⁴ Our own souls' acts of cognition too are circular movements: understanding's grasp of intelligible objects is motion in the Circle of the Same, and true opinion's grasp of perceptible objects is motion in the Circle of the Different. We are able to grasp Being, Sameness, and Difference and thereby to make judgments or have beliefs (e.g., that something is, that it is the same as itself and different from other things) because the rational and immortal part of our souls is composed of Being, Sameness, and Difference (37a–b). (In the *Theaetetus*, Socrates says that in grasping these forms the soul is operating by and through itself, rather than through the senses (185c–e), and that knowing anything requires grasping at least Being (186c–e).) When we study astronomy, thinking about the heavenly bodies' circular orbits makes our thoughts

³ As Broadie (2001) has pointed out, the *Phaedo* had failed to unite these two functions of soul. In the *Phaedo*, despite Cebes' demand that he show that after a man has died the soul still exists and still possesses some capability and intelligence (70b), Socrates offers a pair of arguments for the immortality of soul *qua* animator – viz. the cyclical argument (70c–72d) and the final argument (105c–106c) – and another pair for the immortality of the soul *qua* subject of cognition – viz. the recollection (72e–77a) and affinity (78b–80e) arguments together. Broadie suggests that what ultimately unifies the soul's two functions is the fact that the soul is essentially a valuer, with the kind of life it desires to have determining the kind of body with which it becomes involved (p. 304); she describes the soul as fashioning and animating its body for the sake of physical action, sensation, and experience (p. 305).

⁴ Cf. Aristotle summarizing the rational soul in the *Timaeus* before going in for his attack: "the motions (*phoras*) of the heavens are the movements (*kinêseis*) of the soul" (*DA* I.3 406b26 and ff.).

themselves move in circles inside the spherical body of our head (90a–d). And when our own thought becomes sufficiently circular and rational, our souls are returned to the heavenly bodies (42b).⁵

Mental attitudes other than understanding and true opinion are distortions of circular motion, caused by the embodiment of souls into mortal bodies (43a–44b). (Immortal souls must be embodied in mortal bodies if the cosmos is to have mortal as well as immortal species in it, and thereby to be as perfect as possible (39e–40a).) Timaeus gives two accounts of embodiment. On the first account (41c–44c), two things happen to the rational soul when it is put into a mortal body: its motions in the Circle of the Same stop entirely (43d), which means that it no longer grasps intelligibles and that it does not rule its body (43d, 44a–b); further,⁶ its motions in the Circles of the Different are badly distorted, which means that many of its judgments about perceptibles, that is, its opinions (37b), are false because the sense-perceptions affect it through the body (43b–c). Timaeus recounts these events through (1) the demiurge's instructions to the lesser gods (41c–d), (2) the demiurge's account of their imminent embodiment to those souls that are to be embodied (41e–42d), (3) direct narrative of the demiurge's sowing these souls into heavenly bodies (42d–e), and (4) direct narrative of the lesser gods' embodying these souls into mortal bodies (42e–44c).

Although (1), (2) and (4) all pertain to the same event, namely the immortal souls' embodiment into mortal bodies, the demiurge's instructions to the lesser gods (in (1)) do not include any mention of the psychological disturbances he foretells in his address to the souls who are to be embodied (in (2)) – namely, that their embodiment (viz. into mortal bodies) will result in their having perception arising from violent affections (*ek biaiôn pathematôn*: 42a5–6), desire (*erôs*) mingled with pleasure and pain (42a6–7), and other affections consequent on these, such as fear, anger, and so on (42a7–b1). Now in the explanatory scheme of the dialogue, some features of the world are necessary as a means to bringing about some good end (for example, mortal embodiment is necessary in order to bring about the good of filling the world with all the kinds of living things: 39e–40a; cf. 70e), while other features of the world are simply necessary consequences of something that happens (for example, the distortion of circular motion because of its encounter with rectilinear motion in embodiment: 43a–d).

⁵ On the circularity of thought, see Lee (1976) and Sedley (2000).

⁶ The astronomical parallel suggests that the motions in the Circles of the Different are distorted *because* they are no longer controlled by the Circle of the Same, so judgments about perceptibles are false because they are no longer controlled by knowledge of intelligibles.

The difference we have noted between the demiurge's two speeches, to the lesser gods and to the souls who are to be embodied, suggests that the psychological disturbances of perception, desire, fear, etc. are not brought about by the gods for the sake of some good but are simply necessary consequences of mortal embodiment. This conclusion is corroborated by Timaeus' later characterization of them as dreadful and necessary, inducements to evil, and terribly misleading (69d).⁷

In its three versions of what happens during mortal embodiment, this passage does not specify in cognitive terms the relationships between (a) the sensations produced when external bodies impact our bodies and this motion is conveyed to the soul (43c), (b) the false judgments that result (43d–e) (both of these are reported in (4)), and (c) the desire, pleasure and pain, and fear, spiritedness, etc. that are also consequent upon embodiment (42a–b) (reported in (2)). A later passage denies the appetitive soul judgment or belief (*doxa*) – while granting it perception, desire, pleasure, and pain – and associates the lack of judgment with passivity and the lack of self-motion (77b–c). Are fear, spiritedness, and so on, like desire, pleasure, and pain, in being without judgment? Or do they somehow involve judgments, so that they might be among or share in the distortions of the Circle of the Different? We see here the same unclarity about the nature of psychological attitudes like fear as in the *Laws* 790d–91b passage about rocking the baby (quoted in section 1).

As noted in section 1, Bobonich argues (on the basis of these passages from the *Timaeus* and many others) that non-rational psychological attitudes depend on reason to provide whatever cognitive content they have, since the non-rational soul-parts themselves contribute only movements to non-rational attitudes. These movements cannot be by themselves motivations to action; the directedness of action requires reason's contentful contributions.⁸ Bobonich's view seems to require that states such as fear or anger have representational content, so that the distress of the infant in our first passage (section 1) would not count as fear, strictly speaking. It is not non-rational attitudes that Bobonich's interpretation impoverishes, but the non-rational soul-parts that are their (partial) source.

Yet such dependence-on-reason for action and for content conflicts with Timaeus' account of how the non-rational soul-parts are designed to serve the good end of enabling the rational part to reason in peace and rule.

⁷ Johansen (2004: 146–8) argues that Timaeus' use of these epithets for the affections is evidence that their being necessary is not conditional necessity, the necessity of a means to some good end.

⁸ See further Bobonich's chapter in the present volume for what the rational part must supply to psychological attitudes for them to ensue in determinate action.

That good, I argue, requires that the non-rational soul-parts be capable of motivating actions all by themselves.

To see this, let us turn to Timaeus' second account of the soul's embodiment into a mortal body (69c–72d). The lesser gods create a body for the immortal soul (69c4–6) and a mortal soul (69c6–7).

They [viz. the lesser gods] imitated him [viz. the demiurge]: having taken over the immortal principle of the soul, they surrounded it with a mortal body and gave it the whole body as a vehicle, and they built as an extension (*prosôikodomoun*) in it another kind of soul, the mortal kind (*allo te eidos ... psuchês ... to thnêton*), having in it terrible and necessary (*deina kai anankaia*) affections: first pleasure, the greatest incitement to evil, then pains, [causes of] avoidances of good things, further, confidence and fear, a pair of foolish counselors, and hard-to-assuage anger and easily-misleading hope. And having mixed these with irrational sense-perception and all-venturing desire, they put together the mortal kind as necessary. And because of these, fearing to pollute the divine where it was not completely necessary, they housed the mortal [kind] in another dwelling in the body, having built an isthmus and boundary between the head and the chest, placing the neck between them in order that it might be apart (*hina eiê chôris*). (*Timaeus* 69c5–e3)

How is this account of the construction of the mortal soul related to the earlier account of embodiment resulting in false opinions and other psychological affections? The divine circles of reason being put into mortal bodies are described in 43a; does 69c introduce the construction of mortal soul-parts as a second stage in the complex event of embodiment? Or does 69c simply fill in details about which soul-parts experience the various psychological affections mentioned in the earlier account?⁹ How does the second account help us to answer the questions raised by the first account about the relations between sense-perception, false judgment, desire, pleasure and pain, and the various emotions?

Timaeus' second account of embodiment makes it clear that the lesser gods deliberately create the mortal soul-parts (by contrast with the psychological affections that are simply necessary as a result of embodiment). In creating the mortal soul-parts, the lesser gods are imitating the demiurge (69c4); this means they are making things as good and beautiful as

⁹ Reydam-Schils (1999: 60–9) argues that Timaeus' first account of mortal embodiment (41–4) gives us the soul–body dualism of the *Phaedo* and suggests that the early Stoics would have accepted the first account of creation, but rejected the second (pp. 69–72), since it gives us a dualism between rational and irrational parts of the soul. According to Reydam-Schils (p. 65), Galen indicates that Chrysippus rejected the second account. I think the alternative interpretation of the second account of embodiment I am proposing would have made the account acceptable to a Stoic. Although it is possible that the two accounts are in some tension with each other, I will assume that a reading that harmonizes them is preferable to one that does not.

possible by means of their craft (29a–30a). So our discussion should be guided by what the second account tells us is the good aimed at by the lesser gods in mortal soul-creation. And the account tells us that the goal, for a creature that must have an appetitive part of the soul if it is to be a mortal living creature (70e4), is to enable the rational part to reason in peace and to govern effectively in the common interest (unpolluted as far as possible, 69d6; apart, 69e3, deliberating about the common good far from the disturbances of appetite, 70e5–71a5).

Clearly the best way to secure for the rational part conditions in which it could reason and govern effectively would be to enable the non-rational parts to do by themselves the things the rational part would direct them to do (seek out food, avoid enemies) – without the rational part's online involvement – if this is possible. And this seems to be just what the lesser gods are equipping the non-rational parts for when, in making them, they combine pleasure and pain, fear and confidence, anger and hope with perception and desire (69d). Timaeus says, “having mixed these [pleasure and pain, confidence and fear, anger and hope] with irrational sense-perception and all-venturing desire, they put together the mortal kind as necessary.”¹⁰ Is the necessity of the combination simple necessity, like the necessity by which the affections were produced in embodiment, or is it the necessity of a particular means to bringing about a good end? The fact that it is the gods who are the direct cause of the combination suggests that the necessity is that of a means, as does the combination itself – what simple necessity would result in perception and desire combining with the other psychological affections? And on the other side, what point could adding perception and desire to, for example, fear, have, other than to enable an animal to run immediately upon sensing danger, without having to think, “death/injury is bad,” “safety is good,” “I can be safe by running away” – thoughts a non-rational animal cannot have? Today, we tend to think of our reason-independent responses as adaptive because they are quick and economical; the *Timaeus*' view seems to be that they are good because they give reason the leisure to learn the truth, including the truth about what is good for the whole soul, and so, to govern the soul effectively.

¹⁰ We need not suppose any inconsistency between this passage and 42a6–7, which describes desire as “mingled with pleasure and pain”: the earlier description is the demiurge's forward-looking characterization of how the souls he is addressing (in (2)) will experience desire when they are put into mortal bodies – it is not a description of what desire is like before the lesser gods get to it. As a matter of metaphysical or physical fact, desire's being mixed with pleasure and pain and perception is a result of the lesser gods' intelligent design (69d).

A reasonable objection to what I have said is that Timaeus so cognitively impoverishes the appetitive part of the soul that it is not capable of originating action on the basis of the affections and perception and desire it does have. Here is the crucial passage:

[To the type of soul] which our account seated between the lungs and the navel, there belongs neither belief nor reasoning nor intelligence (*doxēs men logismou te kai nou*), but sense-perception, pleasant and painful, along with appetitive desires. For it is entirely passive, and [its] generation has not given it a nature to reflect and reason about (*logisasthai*) anything of its own by turning itself in itself around itself, repulsing external movement and using its own movement, on account of which it lives and is not other than an animal, but it is rooted and fixed because deprived of self-motion. (*Timaeus* 77b–c)



Apparently, the denial of reasoning (*logismos*), intelligence (*nous*), and opinion (*doxa*) to the appetitive part of the soul has the consequence that a living thing with only an appetitive soul cannot move from one place to another. But do all animals that engage in locomotion have opinion, intelligence, and reasoning? Timaeus' accounts both of reincarnation and of the shape of animals' heads require that non-rational animals possess reason in some distorted form (91e–92c), but does animal locomotion involve this distorted reasoning capacity? The problem is that while Timaeus talks about the soul of plants – the appetitive part – and of human beings – the appetitive, rational, and spirited parts – he says very little about the souls of non-human animals. Since the stationary life of plants is due to their possession of only an appetitive soul, it would seem that animals that engage in locomotion must have some part of the soul other than the appetitive.

Here are two possibilities: first, since Timaeus attributes locomotion to reflection on and reasoning about “one’s own,” animals that locomote may possess very low-grade abilities to reflect on and reason about their own. So whereas a plant can only respond in one way to a stimulus – it can only grow branches toward the light above ground and roots toward the water below the ground – locomoting animals have at their disposal a greater variety of responses to select from. A lizard approaches a bug, and upon examining it, discovers it is a bee. It can attack or run. Selecting among these possible responses requires it to have a sense of its own abilities and its situation (this is presumably included in whatever is “its own” to reflect on). While such assessment by an animal of its situation is far from a *Protagoras*-style art of measurement that would deliver appearance-free truths, to the extent that it requires something like comparison, something like ranking alternatives, we can see why Timaeus would contrast it with

a purely passive registering of appearances and suggest that it is a kind of distorted reasoning. Another possibility is that the other part responsible for locomotion is the spirited part. Timaeus only discusses the function of the spirited part in human beings, where it is to be the rational part's strongman, but perhaps non-human animals' rational parts are dormant, so that the spirited part in animals serves the appetitive part by engaging in something like reasoning about its own. Among considerations in favor of attributing such capacities to the spirited part are that many animals grow angry with those that cause them pain, that their anger is characteristically aroused by attacks on their own young, or their own territory, and that such anger is frequently followed by a counter-attack.

These proposals are admittedly very speculative, but discussions that stick more closely to the text of the *Timaeus* can end up modeling the whole of the non-rational on the appetitive, with the result that either they cannot explain non-human animal behavior or else they accord the appetitive part too much cognition. Bobonich's account has the first of these problems, because of its too-severe cognitive impoverishment of the appetitive part and extension of this impoverishment to all the non-rational parts of the soul. Timaeus says that the appetitive part, even if it could perceive something of reason or argument, would not care about it, but would be led (*psuchagôgêsoito*) by images and phantasms, and so god designs the liver to be reflective and to receive imprints of the power of thought as visual images, in order to frighten or cheer the appetitive part (71a–b). Since Bobonich holds that the rational part is required to contribute not only propositional but also representational content in image form, he reads this text to say that the viewer of these images is the rational part itself, for the appetitive part is responsive only to the pleasure or pain caused by making the liver smooth or rough, not to any represented content (p. 318). But why would these be reflected in the liver, seat of the appetitive part, rather than in the head, if they were not to be seen by the appetitive part? Further, the fact that reason *can* be the source of the appetitive part's images does not entail that it *alone* can be the source of such images (consider that the appetitive part is capable of divination when one – and presumably one's rational part – is asleep: 71d). Finally, how do non-rational animals act if reason's input is required for every action?

To avoid these problems about animal movement, but still modeling all the non-rational parts of the soul on the appetitive part, Lorenz (2006: 99–109) grants the appetitive part too much cognition. Lorenz argues that while the appetitive part is deprived of reason and belief, it has the representational powers of the sensory imagination, centrally, the

power to have appearances (*phantasiai*).¹¹ Lorenz adds to the evidence of the *Timaeus* two (in his view better worked-out) passages from the *Philebus*: 32b–36c, which asserts that any desire requires memory, and 38e–40c, according to which the pleasures of anticipation involve imagistic representations of (propositionally conceived) beliefs.

While I agree with Lorenz's conclusion that the appetitive part is capable of motivating action by itself, I do not see that these texts certify it rather than Bobonich's alternative. For the fact that the soul has in it a "painter" that illustrates the words of the soul's "scribe" (*Philebus* 39a–c) does not even suggest that the painter can motivate actions without the scribe. And complementing this idea of the painter following the scribe, the *Sophist* defines appearance as a combination of perception and belief (264b). Since *Timaeus* 71a–e and *Philebus* 38e–40c are about one particular effect of the rational part on the appetitive part – the appetitive part's imagistic representations of the rational part's beliefs – we should not assume that these passages give an exhaustive account of the relations between the parts. It is undeniable that *Philebus* 35a–c argues that desire implies memory, and that at least the paradigm desires in this context are appetitive, but that, together with *Timaeus* on the liver as theater, hardly suffices to grant the appetitive part all the powers of the sensory imagination: should we suppose that plants have all these powers? If so, which scribe do plants' images follow?

I conclude from these considerations that although the texts are hazy on the details of *how* in various cases the non-rational soul-parts motivate independently of reason, the teleological account of mortal soul-construction in the *Timaeus* supports the view that the non-rational parts can generate actions independently of reason. In what follows, I sketch a couple of different ways in which the construction of mortal soul-parts might serve the end of enabling the rational part to reason well.

One possibility is that mortal soul-construction protects the rational part by preventing it from having to suffer the psychological affections that it would have had to suffer if, contrary to fact, the mortal soul-parts had not been constructed. On this interpretation, the mortal soul-parts are created simultaneously with the embodiment of the rational soul. (This event would then be partly recounted in *Timaeus*' first account, with details filled in by the second, such as that embodying the soul into a mortal body must include the simultaneous construction of a mortal

¹¹ A standard strategy for compensating a creature denied reasoning capacities is enriching its non-rational capacities. For extensive documentation, see Sorabji (1993).

soul.) And on this interpretation, the fear and anger mentioned in the first account of embodiment are revealed in the second account to be located in the spirited part; the desire, pleasure and pain to be located in the appetitive part; and so on.

This is not an entirely satisfactory interpretation, because the first account affirms that reason's thinking is actually, and not just counterfactually, distorted when it is assailed by sense-perceptions upon embodiment (43a–d). Now one could suppose that mortal soul-construction protects reason from psychological affections like anger and fear, but not from sense-perceptions, and so the rational part develops false opinions, but not emotions and appetites, as a result of embodiment. But when the demiurge is telling the souls what they will experience as a result of embodiment, he lists, without any distinction, sense-perceptions along with desire mixed with pleasure and pain, fear, and anger (42a–b). Further, surely at least some emotions involve opinions, and finally, it seems odd to attribute false opinions to sense-perception but not to appetites, when Timaeus clearly says that some distortions of the circles of thought are due to nutrition (44b2–3 is explicit about this).

The alternative is that embodiment results in the rational part actually experiencing non-rational psychological affections such as anger, love, and so on, until the mortal soul-parts are created to take over these experiences. Perhaps embodiment involves two successive stages, in the first of which the rational soul experiences distorted thoughts, perceptions, pleasure and pain, desire, fear, anger, etc. (42) when it is put into a mortal body. That shock to the soul is so great that it loses contact with intelligibles (forgetting what it knows, as Socrates puts it at *Phaedo* 76d). Then, in a second stage of embodiment, the lesser gods make mortal soul-parts. These soul-parts can take over some of the experiences previously suffered by the rational soul in order to enable it to reason and rule with fewer distractions.¹² They can absorb or dampen the shocks coming through the body so that these do not reach the rational part, and then, because the body still needs protection and nutrition, they can respond to the shocks themselves after their own fashion. So, for example, the spirited part takes over anger, for which the chest is a good location, because the blood can boil there, and because the lungs can cool it there (70c).

A radical version of the view that the rational part experiences anger, fear, and so on upon embodiment is suggested by the account of embodiment

¹² Johansen (2004: 154–5) reports that David Sedley calls this a “devolution of irrationality” from reason to the lower parts of the soul.

in Karfik (2005). Karfik argues that the mortal soul-parts just are spatially segregated collections of psychological disturbances that originated in the rational soul's embodiment.¹³ On this view, there would be only one kind of disturbance resulting from embodiment – the disturbance due to the collision of circular with rectilinear motion – and the construction of the mortal soul at 69c would be no more than the containment or housing of some of these disturbances in different parts of the body and the concomitant disengagement of reason in them. Assailed by various troubles, reason alienates some of its more troublesome affections, which henceforth become an inferior soul-part – just as, in the 2008 financial crisis, banks were made “good” again by the creation of “bad banks” into which they sloughed off their “toxic assets.”

Karfik must understand the “mortal kind of soul” that the lesser gods create (69c) as the immortal soul in a particular – spatially separated – condition. In his favor, the shape of the marrow – round as well as elongated (*strongula kai promêkê*: 73d4), making it suitable for circular motion altered by rectilinear motion – suggests that it is meant to be housing the movements of embodied reason.¹⁴ But the marrow could have that shape in order to facilitate reason's communication with the other soul-parts. Probably the decisive objection to Karfik's account of what the mortal soul-parts are has to do with composition. For the explanation of the rational part's ability to grasp Being, Sameness, and Difference and thereby to think and form beliefs is that it is composed of these (37a–b). Now if the mortal soul-parts are made up of the same materials (Timaeus is silent on this question), then they too should be able to grasp Being, Sameness, and Difference, and then they too should be able to think and form beliefs. But Timaeus denies at least that the appetitive part can reason and form beliefs (77b–c). On the other hand, the question of composition is not easily answered. Suppose we grant that the mortal soul-parts can't be made up of the same things as the rational part. What are they made up of? If earth, air, water, or fire, how can they move themselves, as souls must?

If the suggestion that the rational part may experience non-rational affections but may also cease to experience them by dint of another part's taking them on is correct, then we have a possible answer to our question

¹³ Karfik (2005: 214): “the ‘mortal kind’ of soul or the ‘mortal parts’ of it are but specific movements of specific tissues, both arising from the immortal soul and acting upon it. There is no mortal soul apart from the body of a living being nor is there any substrate of it other than the bodily tissues of an organism. That is why Timaeus can say *wherein* the mortal kind of soul is to be found and what happens *in it*, but not *what it is in itself*.”

¹⁴ Cf. Johansen (2004: 151–2).

of how opinion on the one hand, and sense-perception and desire on the other, are related to psychological affections like fear and anger, as well as to our question of the basis on which the Athenian in the *Laws* attributes fear to the distressed child who is to be rocked, when fear involves expectation of evil. Fear may, but need not, involve the rational part. When it does, it involves the expectation of evil, but when it does not, its history (or perhaps more ponderously but precisely, its ontogeny) is the reason still to consider it fear. The characteristic phenomenological and physical correlates of the expectation of evil (a vague agitation, a racing heart) are counted as fear not only because of the usualness of their correlation with the expectation of evil, but also because of this history.

It is time we turned to the second psychological passage in the *Laws*, the famous comparison between the soul and the strings that pull a puppet (644c–45b), to see how our interpretation of the *Timaeus*' tripartite psychology squares with it. According to the *Laws* passage, the affections of pleasure and pain, confidence and fear, and calculation are like the cords that pull a puppet in this direction and that: they pull on us, one against the other, and thereby lead us to act. All the other cords are thick and strong, but calculation's is soft and gentle, so in order to triumph over the other cords, calculation needs helpers. We should pull along with the cord of calculation; and each individual and the legislator should acquire an account of these pullings in the soul. Bobonich sees this passage as rejecting the agent-like conception of soul-parts in its characterization of the parts as strings and the non-rational parts' contributions to action as pullings, and in its framing the puppet analogy by the claims at the outset that each of us is one individual, and at the end that we must pull along with the golden string of calculation.

Yet the *Republic* too, despite accepting agent-like soul-parts, sometimes characterizes soul-parts as strings (410e–11a, 411e–12a; cf. 443d and the very metaphor of harmony) and their contributions as pullings (437b–c), and at times invokes a self over and above the three parts (553c–d). Further, in the *Laws* passage it is only reason that is said to be too gentle to pull the puppet – the other strings seem quite strong enough to pull without the help of reason (which makes it sound as though reason needs the other parts to motivate action, rather than the other parts needing reason). So while the *Laws*' puppet passage does not represent the soul-parts as agent-like, the internal textual basis for saying that it *rejects* this conception is slight.

Plato has good contextual reasons for not invoking the agent-like conception of soul-parts in the puppet passage. The puppet analogy is introduced to illuminate, to the would-be legislator, the nature of the

virtue of self-control (645b), so as to justify a quite specific educational proposal, viz. the symposium (638c ff., 645d ff.). The symposium has two functions: first, it tests whether citizens are virtuous – their non-rational motivations aligned with their rational judgments – or merely enkratic – their actions in accordance with reason, although not their feelings. Ordinarily, it is only possible to see whether a person's actions are in accordance with rational judgment; learning their feelings is far more difficult. The institution of the symposium provides a way of learning their feelings: get people drunk, and their pleasures and loves are intensified, while their rational operations (their perceptions, memories, opinions, understanding) are weakened (645d–e). Second, the symposium affords opportunities to correct the balance of motivations: if the overseer of the symposium finds citizens' pleasures out of alignment with their opinions, he will rebuke them publicly and in their presence reward others whose pleasures are so aligned (648c). This experience will give them another motivation, presumably concern for honor or reputation, to side with calculation. The puppet analogy enables us to visualize this process by likening the different motivations to cords that pull a puppet. The analogy is also helpful from the first-person perspective insofar as it prescribes a way of managing our own motivations while owning them all (contrast the *Republic's* prescription to think of oneself as a human being containing within oneself a human, a lion, and a many-headed beast (588b–d): that clearly encourages alienation from one's non-rational motivations).

The role of the puppet analogy in the larger context also shows why, while the puppet analogy is richly informative about *enkrateia*, its difference from virtue, and *akrasia*,¹⁵ it is not helpful for understanding how virtue is inculcated in citizens in the first place. How do music and gymnastics work on the thick and tough cords of pleasure and pain so that they pull along with the golden cord of reason? Is it by propitious pullings

¹⁵ As Bobonich (2002: 263–85) shows, the puppet passage can tell us a great deal about the *Laws'* conception of the soul: that affections such as pleasure and pain, confidence and fear, anger, etc. arise independently of calculation, have a motivational force independent of what the reasons are to act on them, and indeed are resistant to reasoning. The analogy allows for several different types of *akrasia*: (1) one acts without a properly formed rational judgment; (2) a properly formed rational judgment about what's all-things-considered best is rendered ineffective (e.g., when one is drunk); (3) one's judgment about what's ATC best is irrationally changed; and (4) one acts contrary to what one knows is best. Observing that rendering the akratic action intelligible requires that what conflicts with the ATC knowledge be not only independent but also connected to deeper or long-term concerns, Bobonich offers that the conflicting motivation involves a memory of what's good or what's pleasant.

of a pleasure cord every time a citizen acts in accordance with reason so as to create a favorable association? Is it by giving pleasure cords practice at being pulled by fine and orderly things so as to strengthen the motivating power of those pleasures over others? In order to understand the whole program of education that begins *in utero*, we will need to go beyond the puppet analogy.

3. HOW PHYSICAL EDUCATION MAKES US BETTER

At the start of his account of musical education in the *Republic*, Socrates likens the souls of the children to be educated to wax, impressionable and mouldable (*malista ... plattetai kai enduetai tupos*: 377a–b). When it comes to the mathematical and dialectical education, he has to change the image, for reason has an innate power that is activated when it is turned onto intelligible objects, just as an eye does not need sight to be poured into it but can see as soon as it is turned toward the light (518b–e). As for physical education, all Socrates says is that gymnastic as well as musical education is undertaken for the sake of the soul, that gymnastic education arouses the spirited part, and that without it, musical education makes people cowardly – if they are naturally unspirited – or irascible – if they are naturally spirited (410b–11e).

By contrast, the soul of the child to be educated in the *Laws* is neither simply impressionable nor already equipped to grasp its object, but is instead characterized by unruly motion (653d–54a). Strikingly, at least part of this unruliness is the unruliness of reason:

Of wild animals, a child is most difficult to take in hand (*dusmetacheiristotaton*): for insofar as he most of all has a spring of reasoning that has not yet been channeled (*pêgên¹⁶ tou phronein mêpô katêrtumenên*), he becomes cunning (*epiboulon*)¹⁷ and shrewd (*drimu*) and most hubristic of wild animals. (808d)

This explanation of wildness reminds us of the *Timaeus*' explanation of the wild movements of young children as caused by the impact on reason's circular movements of the rectilinear movements that affect the soul through the body (43b). Education, then, is quite naturally conceived of in terms of channeling these disorderly movements to get them back on course. The *Laws* seems to foreground the reason that is present in the

¹⁶ This is the most commonly repeated metaphor for motivational source; cf. 636d, where pleasure and pain are the two natural *pêgai*.

¹⁷ Cf. *Symposium* 203d4 for this characterization of Erôs insofar as he is a son of Poros.

as-yet irrational child as a capacity to be trained, at first by musical and gymnastic education. The *Republic*, by contrast, says nothing about reason in children although it does recommend teaching them mathematics through play (536e). Instead, it brings in reason as a developed capacity that follows musical education (402a). These contrasts may reflect changes in Plato's psychology between the *Republic* and *Laws*, but they may also reflect Plato's greater interest in the *Laws* in explaining the mechanics of education.

I suggested in the previous section that our souls have been so constructed that the rational part may, but need not be, involved in our non-rational attitudes. Combine this with Socrates' insistence in the *Phaedo* that our false opinions are due to the involvement of our thought in bodily affections like pleasures, but that it is open to us not to get caught up in these affections and attend instead to our intellectual improvement (cf. *Phaedo* 83a). The *Timaeus* adds to this static account of the adult's condition an account of development. There is a point in human development at which, due to the gods' intelligent design of our souls, the soul divides so as to allow the rational part to do what the *Phaedo* recommends: draw itself up into itself in order to concentrate on what it has forgotten in embodiment. After this point, it is open to us to involve our thought in our non-rational affections (and thereby to develop false opinions, for example that happiness lies in appetitive satisfaction) or to disengage thought from these affections. An effect of such a voluntary disengagement might be that full-blown emotions would be reduced to felt disturbances in the chest or gut without the involvement of any judgment, like the "scars" of emotion that Seneca says still remain in the Stoic sage (*On Anger*, I.16).¹⁸ I want now to suggest that the *Timaeus* and *Laws* add to the recommendation of intellectual disengagement with non-rational affections physical training to manage these affections (as opposed to the pretense that we simply don't experience them).

Physical education's most straightforward benefit is, of course, bodily strength: *Timaeus* says we should exercise both body and soul so that their strength is proportional, for a soul that is too strong for its body will make that body suffer disease and exhaustion from inquiry and debate – conversely, a body that is too strong for its soul makes the soul stupid by

¹⁸ Cooper (1999: 467–8) argues that Posidonius introduced into Stoic psychology *pathêtikai kinêseis* ("affective movements"), to refer to sub-impulsive movements through which non-rational powers in the soul contribute to emotions (impulses to action which constitute evaluative judgments) proper. Unlike the emotions, these affective movements would be natural to humans (and animals) – and consequently would survive the extirpation of the emotions.

forcing it always to serve appetitive desires (*Timaeus* 88a–b). And we can imagine ways in which bodily weakness might interfere with virtue other than by making for a sleepy student. If courage demands that I engage in some strenuous physical exertion but I am physically weak, my appetitive part may defect from acting as courage demands because of the pain of such exertion. Had I been stronger, my appetitive part would not have experienced pain upon strenuous exertion. We can think here of physical education as reducing the appetitive part's passivity with respect to pain. Still, the means by which it does so are indirect, via the strengthening of the body.

However, when the Athenian says that calming frightened children by rocking them is training in courage (791b–c; cf. section 1), he suggests that physical movement does more than strengthen the body. The child's soul is afflicted by the disorderly motions of fear, and rocking overpowers this motion. The Athenian thinks that such practice at overcoming fears contributes to courage, whereas growing up with fear makes one more likely to end up a coward (791b). If the rational part may, but need not, occupy itself with non-rational affections, then perhaps eliminating such affections from the child's early experiences reduces the opportunities for the rational part to form the associated false opinions which would, if they took hold, make for a coward. Presumably the motions of fear are uncomfortable and a child familiar with them would tend to form the opinion that whatever occasions them is evil. Perhaps alongside this, getting accustomed to the feeling of fear from infancy would have the effect that when grown, upon feeling fear, one would not be motivated to get rid of either the putative dangers or one's opinion of an evil in store.

If our psychological attitudes are motions, and their course can be influenced by bodily movement, can we induce opinions, or knowledge, through movement? It is clear that intellectual virtue requires the study of astronomy, music theory, and theology (*Laws* 821e–22c; cf. 817e–18a, 967d–e), not running in circles, so clearly physical education cannot produce knowledge. The psychological explanation for this commonsense fact must be that knowledge is movement in the Circle of the Same, and movement in the Circle of the Same is self-motion in the strictest sense, and so cannot be the effect of any bodily movement. The case of opinion is unclear: on the one hand, since false opinion is the product of affections that reach the soul through the body (as in the *Timaeus*' first account of embodiment), it seems that true opinion could be the product of different affections coming through the body; on the other hand, if opinion requires the grasp of Being, Sameness, and Difference, which the rational

part grasps by itself, it is difficult to see how this could be solely the effect of bodily movement.

By far the greatest benefit of physical education, indicated by Bobonich's account of the contribution made by pleasure in orderly movement to the inculcation of virtue, seems to be indirect. Since physical education consists in orderly movement, and since human beings from their infancy are able to perceive and enjoy the order in movement (Laws 653e–54a; cf. section 1 above), orderly movement serves as the first rung on a ladder of instances of order on which virtue is a higher rung. Since order in movement, like order in other instances, is intrinsically valuable, the pleasure in orderly movement is an appreciation of something intrinsically valuable. In education the student ascends from appreciating the order in physical movement to appreciating the more abstract order in mathematics or virtuous action. A similar ascent is suggested by the *Timaeus*' account of the point of sight and hearing: sight enables us to observe the heavenly bodies; training our sight on them enables us to focus our intelligence on their intelligent movements, and thereby to become intelligent ourselves; hearing enables us to hear music, focus on its harmonies, and thereby to become harmonious ourselves (46e–47e). Although this passage doesn't mention pleasure, it explains that physical movements provide for us instances of orderliness and intelligence that are easily detected by us. Presumably if we have learned to see and enjoy order in movement, music, and visual phenomena, we will be more receptive to experiences that involve such order and less receptive to experiences that don't, and so we will not find pleasure in overeating or excessive drinking. And if we do not find pleasure in these things, we will not be inclined to believe, falsely, that food and drink, or the means of getting them, are particularly valuable. And in this case, our pleasures will support, rather than impede, our rational activity. Bobonich's account of the educational role of pleasure also fits well with the *Philebus*' and *Laws*' acceptance of pleasure as a good, whose goodness, however, consists in the (degree of) truth, purity, and proportion (*Philebus* 65a) in each pleasure.

Plato, it seems to me, can give pleasure this role even if he has not rejected the view that the non-rational soul-parts are capable of independent movement and so does not require the rational part to provide the content for pleasures, perceptions, desires, and so on. Now whether or not the non-rational soul-parts are capable of independently originating action, it is only the rational part that can be involved in the educational

ascent described by Bobonich, because it is only the rational part that can respond to order as such – hence the Athenians’ supposition in the *Laws* that among animals, only human beings are able to perceive the order in dance (654a). What Bobonich’s proposal that the rational part must provide the representational content for non-rational affections secures for the properly educated person is that their non-rational affections cannot conflict with their rational part’s attitudes. But such perfect harmony (not between reason and appetite exactly, but between reason and pleasure) in the soul of the educated person is belied by the need for institutions like the educational symposium for old men; the regime of lifelong gymnastics suggests that some misalignment between our opinions and pleasures is an ongoing condition, requiring ongoing correction by physical education throughout life. In my view physical education is different things to the different soul-parts: it provides the rational part with a pleasing instance of order from which to generalize and ascend; it makes the appetitive part less passive with respect to pain; it cancels out the psychological affections that intellectual training has detached from the opinions associated with them.

My account of the value of physical education is rather messier than Bobonich’s, but in its favor is the fact that on Bobonich’s account, we benefit from orderly movement as spectators only – we could derive the same intellectual benefit from watching others’ physical activity as from engaging in it ourselves. But the Athenian insists on participation in gymnastics, not just watching it, and when Timaeus ranks the different kinds of physical movement, he says that our well-being is best served by self-motion (which is kin to the motion of the universe), second to which is locomotion in a vehicle (sailing on a ship at sea, being carried about by a parent), after which is a change of state induced by drugs (89a–b). (Timaeus’ own explanation of why self-motion is the best appeals to the kinship between self-motion and the motion of the universe, suggesting a connection, or analogy, between moving one’s own body and thought, perhaps that both display spontaneity, but more likely that when I move my own body, I do so upon judging that it is for the best. But this is an appeal to the good that self-motion expresses rather than the good it develops.) Now perhaps I will have more immediate access to instances of order if I am engaging in them myself than if I am watching others do so, or I will also appreciate order proprioceptively rather than only visually. Such instances of order as are to be had in having a healthy constitution, coordinating one’s movements, or participating in a chorus

may be accessible only to the participant. Yet if the point of pleasurable experiences of order is to enable us to grasp order as such, then missing out on one particular kind of orderly experience (proprioceptively grasping order, say) would not seem to be such a great loss as long as one had access to others. On the other hand, if, as I have suggested, physical education has an important role to play in settling the psychological affections detached from their associated beliefs, then participating in physical education is as crucial, and as crucial throughout one's life, as the *Laws* says.