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WHAT SOCRATES LEARNED FROM PARMENIDES. PART 1.
PARMENIDES' *GYMNASIA* AND SOCRATES' INTELLECTUAL
VIRTUES*

Abstract. This is the first of two studies in which I examine Plato's account of Parmenides' contribution to Socrates' education. This account suggests, I argue, that Socrates became a virtuoso of the *elenchos* and the embodiment of fundamental intellectual virtues thanks to the *gymnasia* depicted in the *Parmenides*. I show how Parmenides' eightfold routine is not a method of philosophical investigation strictly speaking; rather, it is a skill-building exercise that relies on memory and whose virtue is partly defensive. My demonstration is based on three sets of distinctions required to do justice to the preparatory character of Parmenides' *gymnasia*. The first differentiates three types of intellectual virtues, the second two kinds of training methods, and the third, three telic modes.

Keywords: pedagogy, training, intellectual virtues, skills, dialectic.

1. Introduction: Plato's *Parmenides* as a pedagogical dialogue

What, if anything, did Socrates learn from his encounter with Parmenides?

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In stark contrast with interpreters whose answer is *nothing, very little* or a *negative lesson only*,¹ my goal is to show that Plato portrays Parmenides as a pedagogue who made a lasting contribution to Socrates' philosophical education in his *Parmenides*. As unique and *atopos* as he was, Socrates became Socrates in part thanks to Parmenides' *gymnasia*. It was this exercise, an intellectual gymnopaedia of sorts cultivating both cognitive mobility and stability, that equipped him with the intellectual virtues and skills required to flourish as a philosopher and to persist in his quest for truth.² Although it can be used for heuristic purposes, Parmenides' *gymnasia*—which I call *the eight-fold routine*—is not a method of philosophical research *per se*. Practiced in youth, it is a multifaceted skill-building exercise based on arguments rehearsal, and whose gymnastic virtue is partly defensive. This, in broad outline, is the thesis I present here. While my first study is centered on the *Parmenides*, the second,³ confirms it by examining textual clues present in the *Phaedo*. My two studies are distinct but complementary.

My thesis fits into the broader context of a holistic interpretation of the *Parmenides* as a pedagogical dialogue. Claiming that Plato's *Parmenides* must be read in a pedagogical perspective can mean several things: (1) that its core, unifying theme is pedagogy (rather than ontology, cosmology, or the theory of Forms)⁴, (2) that it depicts a critical phase in Socrates' education, (3) that it sheds light on ancient pedagogical practices and on the pedagogy of philosophy, or (4) that it aims to have a pedagogical effect on the reader.⁵ I am convinced that the *Parmenides* is pedagogical in all four senses, but my studies focus on the second and third.

Although I cannot develop this holistic reading here, I must briefly mention what motivates it. Three explicit features support a pedagogical reading. First, this interpretation reflects the dramatic context of the dialogue, in particular Socrates' young age—a unique feature in the Platonic corpus—and Parmenides' maturity, which suggest a mentoring relationship between the two. Second, it matches Parmenides' benevolent attitude towards the young philosopher. Far from being on a mission to crush Socrates' spirit, Parmenides puts him to the test while being supportive, *seriously helpful*, as Sandra Peterson puts it.⁶ Finally, it is consistent with Parmenides' explicit propaedeutic exhortation, and the concrete training instructions he shares with Socrates. More implicitly,

¹ See A. Larivée, *What did Socrates Learn from Parmenides. Part 2*, p. 122, n. 2, n. 3, n. 5 & p. 123, n. 1.

² For a reason that will become clearer later, I use the verb *persist* on purpose. Being smitten with philosophy in youth is one thing, having the means to persist as a *lover of wisdom* throughout one's life is another. This is illustrated by Antiphon who abandoned philosophy for the care of horses, see *Prm.* 126c.

³ See A. Larivée, *What Socrates learned from Parmenides. Part 2*.

⁴ This does not mean that these other themes are absent or of no interest, just that they are not the central, unifying theme of the dialogue.

⁵ For (4), see e.g. R. Robinson, *Plato's Earlier Dialectic*, p. 265 & C. Meinwald, *How Does Plato's Exercise Work?*, p. 472 & p. 492, who believes that Plato is *assigning us homework*. Please note the use of italics in lieu of quotation marks for citations and article titles in the journal *Organon*. If italics are not combined with a reference to a modern or ancient text, the reader can conclude that they are used in the standard way, i.e. to express emphasis.

⁶ See S. Peterson, *New Rounds of the Exercise of Plato's Parmenides*, p. 248.

but equally clearly, Parmenides' pedagogical intent is manifest in the trajectory of his interaction with Socrates. It is marked by five stages: (1) an observation of natural dispositions (alluded to at 135d1–2), (2) a vigorous cross-examination leading to diagnosis (130b–135d), (3) an exhortation to preparatory care (135d2–6), (4) a prescription of gymnastic training (135e–136c), and (5) a training demo (137c–166c). This progression suggests that far from proceeding randomly, Parmenides has a method as a philosophical educator. Due to lack of space, I start with a close examination of intermediate stages (3) and (4), i.e. Parmenides' propaedeutic exhortation and his training instructions. Much information can be extracted from these passages to elucidate the *preparatory* nature of the Eleatic exercise. I then turn my attention to general features of the training demo, stage (5), to address what I call *the complexity problem*: the question of knowing how such an obscure and complex demonstration can have pedagogical value at all.

2. Parmenides' exhortation to train with preparatory gymnastics (135d2–6)

Before engaging in discussion with him, Parmenides took the time to observe Socrates' philosophical dispositions (135d1–2). This observation takes a more active turn in his vigorous cross-examination of Socrates' views on the Forms. Their dialogic exchange reveals Socrates' inability to defend his theory against objections (130b–134e).¹ Parmenides concludes this trial by chastising Socrates for having *undertaken to mark off [or define] [ὀρίζεσθαι ἐπιχειρεῖς] something beautiful, and just, and good, and each one of the forms, too soon [...] before [he has] been properly trained [πρὶν γυμνασθῆναι]* (135c8–d1).² Parmenides then shares his diagnosis and offers recommendations:

The impulse you bring to argument [ἡ ὀρμή ἣν ὀρμᾶς ἐπὶ τοὺς λόγους] is noble and divine, make no mistake about it. But while you are still young, put your back into it and get more training [ἔλκυσον δὲ σαυτὸν καὶ γύμνασαι μᾶλλον [...] ἕως ἔτι νέος] through something people think useless—what the crowd call idle talk. Otherwise, the truth will escape you. (135d2–6)

While the pedagogical aim of the observation and of the cross-examination phases remained implicit (pedagogical stages (1) and (2) mentioned in my introduction, which I am not at leisure to examine here), by urging him to train and prepare himself while young, Parmenides openly expresses his desire to contribute to Socrates' philosophical development. From that point onward, the pedagogical interpretation of the dialogue is on safe ground. However, several questions arise from Parmenides' application of gymnastic vocabulary to the

¹ Parmenides' own indirect defense of the Forms (see 135b–c) indicates that what is found lacking is more Socrates' ability to defend his theory than the theory itself. The *Parmenides* may well contain formative critiques and, possibly, implicit lessons on the Forms. However, regarding them as the dialogues' main theme is a mistake since Parmenides' focus is on *Socrates' relation* to his favored theory, his incapacity to defend it, and his need for training.

² I use M. L. Gill & P. Ryan's translation of the *Parmenides*. All English translations of French commentaries quoted in footnotes are mine.

intellectual sphere of *logoi*. The analogy between body and mind is not without complexity and calls for clarification.

2.1. Distinction between different intellectual virtues

First, in the case of the body, exercise promotes the development of various kinds of physical excellence: strength, endurance, flexibility, speed, agility, mastery of a particular sport or athletic discipline, etc. If the same applies in the intellectual sphere, we must ask what kind of cognitive or argumentative excellences Parmenides thinks Socrates must develop. The ultimate goal is clearly identified: to grasp and *see* truth through dialogue, arguments, and philosophy (135c1, c6, d6, 136c5, e1–3). But to *prepare* for this, is it a matter of:

- developing *Fundamental Cognitive Abilities*, e.g. the ability to perceive similarities and differences, basic deductive skills, mental flexibility, good memory, etc.?

- and/or of developing more *Complex Argumentative Skills*, such as the ability to sustain or lead an elenctic cross-examination like the one to which Parmenides submitted Socrates, say, or the type of *reductio ad absurdum* his disciple Zeno is known for?

- and/or of preparing the ground—one way or another—for a particular *Epistemic State of Insight* to occur (such as an adequate understanding of Forms, or of the universe)?¹

In the context of the *Parmenides*, all three possibilities are conceivable and plausible. They are also not mutually exclusive. Parmenides may well mean that Socrates needs to work on all three kinds of intellectual excellences. Nevertheless, it is crucial to distinguish them since privileging any one of these options impacts how we approach Parmenides' training demo in the second part of the dialogue.

2.2. Distinction between different training methods

A second useful distinction concerns two general training methods. When it comes to physical training, one can either:

- *Train for X by doing X* (e.g. becoming a weightlifter by lifting weights, learning to wrestle by wrestling, to swim by swimming, to run by running), or
- *Train for X by doing Y* (e.g. a swimmer may lift weights to swim faster—a form of *cross-training*—while a martial artist may do drills to strengthen combat skills, and a hockey player go to power skating camp to improve performance).

Let's call the first kind *direct* or *developing X through X* training method, and the second, *indirect*, or *developing X through Y* training method. While most amateurs are content with the former method, serious athletes typically rely on a mix of both methods. There is no reason to doubt this applies to training methods for the mind, too. The distinction will prove useful later.

¹ This is not an exhaustive typology. I focus on possibilities that appear relevant in the context of the *Parmenides*. Note that whereas the two first have physical equivalents, it is less obvious for the third.

2.3. Distinction between different telic modes

Finally, physical training can have different goals and relate to those goals in different guises. This is a rather complex question, but for the sake of my analysis, I will distinguish three telic modes: autotelic, homotelic, and heterotelic.

– *Autotelic*: the autotelic mode means that one trains in an athletic discipline for the very sake of excelling in that discipline. Imagine a swimmer who trains for no other objective than becoming the best possible swimmer.

– *Homotelic*: we can think of other cases where an athlete trains in an athletic discipline in order to excel in another discipline. Think of someone who trains with a swimming team to excel in triathlon or water polo. I call this mode homotelic since, although they are distinct, the activity performed in the training and the one that constitutes the goal share similar elements.

– *Heterotelic*: finally, there is the *heterotelic* mode which refers to an athletic training whose goal is not linked to athletics *per se*. Imagine someone who practices swimming to ensure their own safety or to become a lifeguard, or who trains in archery or martial arts to prepare for war (see e.g. *La.* 178a & 182a–d, *Lg.* 830a–e). The case of professional athletes training for money and fame also belongs here.

While the exhortation passage contains no explicit information on the type of virtues or the type of training Parmenides has in mind, it does shed light on the training's telic mode.

2.4. The telic mode of Parmenides' *gymnasia*

If we apply the last set of distinctions to the sphere of intelligence, to which telic mode does Parmenides' training belong?

(A) Is Parmenides' training *autotelic*? If it's the case, then the *gymnasia* aims at nothing else than cultivating the increased ability to execute the exercise Parmenides performs in his training demo, and truth is reached through the performance of this exercise itself.

(B) Is the training *homotelic*? If so, truth is not reached in the context of and through the training *per se*, but the exercise performed, of a dialectical nature, equips one with the basic cognitive abilities and/or more advanced argumentative skills required to attain truth, eventually.¹

(C) Is the training *heterotelic*? In this case, we could imagine, for example, that the training equips young philosophers with the equivalent of an intellectual martial art allowing them to protect their quest for truth from attacks.

The only option excluded is (A), the autotelic mode. Indeed, in his exhortation Parmenides insisted that Socrates must train *while he is still young* (135d5–6). He himself is reluctant to perform the exercise at his age (136d1, 136d8,

¹ I use the term *dialectical* in a general sense to refer to the exchange of arguments in a dialogical context. R. Robinson, *Plato's Earlier Dialectic*, p. 264, sees the *gymnasia* as an homotelic training (option B) focused on Fundamental Abilities: *It does not itself attain truth of any kind; but it sets the muscles of the mind in a better state to obtain truth hereafter*. The *gymnasia* and dialectic can be distinct while being closely related, a possibility S. Delcomminette, *La méthode du Parménide ...*, p. 348 & p. 350, neglects.

137a), and when he accepts to offer a training demo, Zeno rejoices at the idea of hearing Parmenides undertake this work *after all this time* (136e4). These remarks indicate that the *comprehensive and circuitous treatment* (136e2) implied by the exercise is not part of a mature philosophical practice, a critical aspect that interpreters too often ignore, and which is the source of much confusion. It cannot be overstated. Far from being an ultimate philosophical accomplishment, the exercise, this *strenuous game* (137b2) depicted in Parmenides' demo, is a propaedeutic training limited to youth and subsequently set aside.¹ If the training prepares the ground, one way or another, for what I called an Epistemic State of Insight, it does not generate it immediately and is not to be confused with it. Since the *gymnasia* is a development tool for a future philosophical practice that differs from it, mode (A), autotelic training, is excluded.² However, nothing excludes telic modes (B) and (C), and various textual elements support each option.

In favor of option (B), the homotelic mode, there is Parmenides' declaration to the effect that being able to grasp the truth, one day, depends on this preparatory exercise repeated with several objects (136b). Without it, the truth will *escape* Socrates (135d6), he will not be able to *view it fully* (136c5). This is not the only possibility, but this statement could mean that while propaedeutic training and mature philosophical practice are distinct, the latter requires and relies on Fundamental Cognitive Abilities and/or on more Complex Argumentative Skills developed by the former.³

Let's note in passing that it is not entirely accurate to say, with M. L. Gill, that the *Parmenides* contains the constant suggestion that *training of this kind is required to discover the truth*, as if Parmenides' *gymnasia* were a research tool.⁴ The terms used by the Eleatics do not speak of discovery, but of the ability not to let the truth *escape* (135d5–6: [...] εἰ δὲ μή, σὲ διαφεύξεται ἡ ἀλήθεια), an image reminiscent of wrestling,⁵ *to achieve a full view of the true* (136c5:

¹ Contra J. Gourinat, *La dialectique des hypothèses ...*, p. 240, who describes the exercise as *necessary mental gymnastics [...] which is not quite accessible to young people*. The text says the exact opposite.

² According to C. Meinwald, *How Does Plato's Exercise Work?*, p. 483, the exercise and philosophy are the same: *Plato has the venerable Parmenides prescribe doing the exercise taking in turn each of the forms as subjects. The inaugural occasion, as I read it, gives us a plan and a model for subsequent studies of all other forms [...] to complete all of them would be to have what Plato would regard as a complete map of reality*. That would mean that the training is autotelic (option A) and that the exercise is performed by mature philosophers to attain an epistemic State of Insight. Meinwald ignores the temporary, propaedeutic nature of Parmenides' training.

³ As will become clear later, I agree here with J. Gourinat, *La dialectique des hypothèses ...*, p. 240, when he states that the *intellectual exercise is similar to physical exercise, it implies training that modifies intellectual performance and abilities*. It is the instruction to repeat the exercise with various objects—to complete several rounds of exercise, as Peterson puts it—which justifies this description. Contra S. Delcomminette, *La méthode de Parménide ...*, p. 352 & p. 357, this differentiates the *gymnasia* from the propaedeutic disciplines of the *Republic*, such as mathematics, which Socrates says essentially help to steer the soul in the right direction through a cognitive shock. Parmenides' *gymnasia* seems rather to develop *these virtues of the soul [...] that are quite close to bodily virtues* and are developed *through habit and exercise*. See Plato, *Rep.* 518d–e.

⁴ See M. L. Gill, *Design of the Exercise in Plato's Parmenides*, p. 496 [emphasis my own].

⁵ According to H. Reid & L. Palumbo, *Wrestling with the Eleatics in Plato's Parmenides*, p. 194, [t]he image of truth "escaping" the hold of a wrestler is unavoidable here. The conclusions I reach in my two studies confirm this.

[...] κυρίως διόγνεσθαι τὸ ἀληθές), and to *gain insight* when *hitting upon the truth* (136e1–3: ἐντυχόντα τῷ ἀληθεῖ νοῦν σχεῖν). This seemingly subtle distinction is decisive, among other things, because it makes it possible not to exclude option (C), the heterotelic mode, from the outset.

Two passages speak in favor of a heterotelic training mode. First, there is Parmenides' advice to prepare by using Zeno as a model (135d8). Now, Zeno described his arguments as a way of rescuing Parmenides' thesis against his detractors by highlighting the absurd consequences of the opposite thesis (127e–128e, in particular 128c–d). Zeno admits he was animated by a juvenile φιλονικία, a love of victory (128d6 & e2). We are faced with an agonistic, or martial use of argument, so to speak, corresponding to the idea that the best defense is a good offense. Note that Parmenides too resorts to an offensive defense strategy when he submits Socrates to an elenctic cross-examination to rescue Zeno's arguments from Socrates' attack.

Second, during his cross-examination of Socrates views, there is Parmenides' allusion to the high level of argumentative skills and experience required to resist and refute the objections of an opponent of the Forms (133b7–10).¹ Both passages suggest that Parmenides' gymnastic training equips youth for dialectical combat. Trainees develop argumentative resources allowing them to defend their theories from the attacks of adversaries. A link with truth, as the ultimate goal, exists, but it is indirect and defensive. Given the close connection between gymnastics and preparation for war in antiquity, the agonistic resonance of Parmenides' gymnastic vocabulary also points to option (C), heterotelic mode.²

At this point in the investigation, there is no basis for deciding between option (B) and (C). And there may be no reason to choose since homotelic and heterotelic modes are not mutually exclusive. The same training, developing Fundamental Cognitive Abilities and Complex Argumentative Skills could have a homotelic and a heterotelic function. One way to get a clearer picture is to examine Parmenides' formal description of the exercise. I now turn to this task.

3. Parmenides' training prescription: the eightfold routine (135e–136d)

Parmenides does not just exhort Socrates to prepare and train. He offers a concrete prescription for exercise, a *gymnasia* (135d7) with a precise formal structure. Let's call it the *eightfold routine* since it involves the performance of a circuit training initiated from two different positions including four movements each.

Before describing the routine, Parmenides shares general advice which sheds light on the spirit of his prescription. As just mentioned, he invites

¹ While some translators assign the skills and experience to the Forms' defender (e.g. J. Moraux), others (e.g. L. Brisson, M. L. Gill & P. Ryan) assign them to the objector. Either way, the defender needs at least as much skills and experience as the objector to resist the attack.

² On the presence of agonistic vocabulary and features in the *Parmenides*, see H. Reid & L. Palumbo, *Wrestling with the Eleatics in Plato's Parmenides*.

Socrates to do like Zeno did, but with the Forms (135e). But what did Zeno do? The invitation to imitate Zeno can mean two things depending on whether one considers Zeno's *objective* or the *method* he employed. In the first case, Parmenides would mean that Socrates must come to the rescue of his theory of Forms. This is indeed what Zeno accomplished with his arguments: he protected Parmenides' thesis, a thesis to which he seems to have subscribed. In the second, Parmenides would invite Socrates to use the same agonistic tactic of offensive defense as Zeno. That is, he would invite Socrates to protect his theory of Forms by showing *the ridiculous* consequences (128d1, d5) that follow if one negates their existence (128c–e). That argumentative tactic made a brief appearance at 135b–c when Parmenides declared that negating the existence of Forms would lead to a destruction of the capacity for dialogue and make philosophy impossible.¹ Since Parmenides will provide concrete training instructions, I think it is safe to infer that he invites Socrates to follow Zeno's example both in terms of its end and means.

But does Parmenides expect Socrates to emulate Zeno through pure mimesis—what I called earlier a *direct* or *learning X through X* training method? No, rather, Parmenides prescribes an *indirect* or *learning X through Y* method: the *gymnasia* or eightfold routine. We can thus infer that this exercise will help Socrates develop the cognitive abilities and acquire the argumentative tools that made it possible for Zeno to use an offensive defense combat technique. (Identifying these abilities and skills is the goal I pursue in the next section.) Before we are even told what the routine is, we can also infer that it involves unfolding and comparing the possible consequences of contradictory theses about the Forms' existence (128c–d). For, to be in a position to show how the views of Parmenides' opponents led to consequences that were *more* laughable (128d5: *γελοιότερα*) than those arising from Parmenides' thesis, Zeno needed to be able to expose and compare these consequences. This operation was not explicitly mentioned by Zeno, but it constitutes the argumentative background of his agonistic arguments. To defend his own theory, the theory of Forms, Socrates must learn to do the same.

The *gymnasia* can help with that. This is confirmed when Parmenides explains that, in order to train, Socrates must not only examine what follows when he hypothesizes that a thing *is*, but also examine what follows when he hypothesizes that the same thing *is not* (136d–136e). But that's not all. To this double review of consequences following from contrary hypotheses, Parmenides adds two dimensions which, when combined, generate what I propose to call *the quadruple point of view* applicable to both the hypothesis and its negation. For every entity Socrates hypothesizes to be or not to be, or *as having any other property* (136b8: *καὶ ὅτιοῦν ἄλλο πάθος πάσχοντος*), he must examine what results for this thing when considered (1) itself in relation to

¹ It is as if Parmenides discreetly started to apply the *gymnasia* to the Forms by considering the aporia that arise if we assume, like Socrates, that they exist (130b1–135b2), and then that they do not exist (135b5–c5). See B. Castelnérac, *Le Parménide de Platon et le Parménide de l'histoire*, pp. 450–451 & A. Larivée, *What did Socrates Learn from Parmenides. Part 2*, section 3.3.

itself, (2) in relation to its others; then consider (3) these others in relation to this thing, (4) these others in relation to themselves. He will then examine what happens when he negates the hypothesis in the same fashion, thus obtaining an eightfold routine, which can be applied to various subjects (136a–c).¹

These instructions are very abstract, which is why Socrates, perplexed, asks for a training demo. We can relate! Alas, the pedagogical value of the demo is less than obvious—at least to a modern reader. This is why in section 4, I use Parmenides' formal description as my sole source of information to identify the abilities and skills the *gymnasia* may develop. I avoid close reference to the subsequent training demonstration or resort to it as little as possible. Given the demo's complexity—a problem I will address in section 5—some elements appear more clearly if we start by submitting Parmenides' formal instructions to scrutiny.²

4. The operations required by the *gymnasia* and Fundamental Cognitive Abilities it develops

A safe and simple way to illuminate the abilities and argumentative skills developed by the *gymnasia* is to dissect the different cognitive operations necessary to accomplish it. This way of proceeding is particularly fertile to reveal the Fundamental Cognitive Abilities it cultivates, which is where I begin.

From a cognitive point of view, the eightfold routine includes two main gestures which are distinct but closely related. First there is the *initial pose*. This is the moment that corresponds to the gesture of hypothesizing (affirmatively or negatively). Then there is the setting in motion of the *unfolding of the consequences*, a movement that is accomplished four times for each of the two poses. Several subtle cognitive operations are involved in these two gestures. Let's start with the most primordial. Parmenides urges Socrates to hypothesize. What does that require and develop?

4.1. *Hypothesizing: detachment, imagination, exploration*

In *Parmenides*, hypothesizing is a deliberate act. This gesture consists of positing something—putting forward a thesis in plain language³—to see where it leads. One mentally adopts a position: *Let's assume that X is (or is the case) ...*⁴

¹ We are therefore dealing with three different dimensions: (a) affirmation and negation of the hypothesis, and for each of the two, (b) consideration of the consequences for the subject of the hypothesis itself and for its others, (c) each in a *pros heauto* and in a *pros ta alla* type of relation.

² However, some aspects of the exercise can only be appreciated in light of the demo. For example, the role played by series of opposites—what Brisson (in: Platon, *Parménide*, tr. L. Brisson, p. 47) aptly calls *lieux d'oppositions*—to produce the chains of consequences, as well as the role of repetition and memory, topics to which I return in section 5.8.

³ Parmenides insists on the hypothesis of existence (i.e. positing that something is), but this is not the only possibility as we see at 136b7–c1. See R. Robinson, *Plato's Earlier Dialectic*, pp. 100–101.

⁴ See R. Robinson, *Plato's Earlier Dialectic*, p. 95: '*hypothesize*' is to posit as a preliminary. It conveys the notion of laying down a proposition as the beginning of a process of thinking, in order to work on the basis thereof. And p. 112: [...] an hypothesis is always a proposition posited at the beginning of a train of thought.

Let me emphasize at the outset that, unlike the Sophists' practice of arguing *pro* and *contra* (the oratory tradition known as *in utramque partem* argumentation),¹ the spirit of Parmenides' gymnastics of contrary hypotheses is open, exploratory. Here, the thesis posited (or negated) is not a conclusion that one seeks to prove by all means. On the contrary, it is a kind of *questioning statement* or *affirming question* serving as a starting point for an intellectual exploration.² From a doxastic point of view, hypothesizing is an act of extreme subtlety. Just before embarking on his long training demo, Parmenides describes the performance of the *gymnasia* as a *strenuous game* (137b2: *πραγματειώδη παιδιάν*). This recourse to the image of the game is apt insofar as hypothesizing first requires a kind of doxastic positioning that is not so different from the case of the child using her imagination to play pretend. Indeed, engaging in the serious game of hypothesizing means that one voluntarily does *as if* what the hypothesis states is the case, for a time. As Robinson aptly puts it: *Positing is only that kind of believing in which we deliberately and consciously adopt a proposition with the knowledge that after all it may be false. It involves all the obscurities of the part played by the will in judgment, or the intersection of will and understanding.*³

This temporary adhesion requires and cultivates a doxastic detachment from pre-existing beliefs. By developing the ability to seriously consider possibilities, hypothesizing stimulates curiosity and erodes the tendency to naïve dogmatism. It is hard to think of a more essential disposition for philosophy. Note that this capacity of doxastic detachment is greatly increased by the act of hypothesizing one thing *and its negation*. For the principle of contradiction—which plays the role we know in the *Poem* of the historical Parmenides—implies that one of the two possibilities considered is necessarily false and therefore cannot be adhered to.⁴ For a time, however, the trainee does *as if* each is the case to peruse the logical landscape emerging from there and see where it leads. As Grote observes: *It is a rare mental endowment to study both sides of a question, and suspend decision until the consequences of each are fully known.*⁵ The cognitive disposition hypothesizing develops may well be the most essential intellectual virtue needed for philosophy.

¹ See the section P. Moraux, *La joute dialectique ...*, pp. 293–300, dedicated to the Sophistic and Eleatic origins of Aristotelian dialectic for useful distinctions.

² Suggesting, as L. Brisson does (in: Platon, *Parménide*, tr. L. Brisson, p. 45), that the second part of the *Parmenides* is about *proving* results creates confusion. See B. Castelnérac, *Le Parménide de Platon et le Parménide de l'histoire*, p. 452, who insists on its exploratory nature. See also B. Castelnérac & M. Marion, *Antilogic*, p. 2, on the antilogy *as a method of enquiry*.

³ R. Robinson, *Plato's Earlier Dialectic*, p. 94.

⁴ See C. H. Kahn, *Parmenides and Plato*, pp. 89–90: *it is precisely this assimilation of the 'is or is not' dichotomy to the law of noncontradiction—to 'p or not-p'—that accounts for the extraordinary effectiveness of Parmenides' argument, its acceptance by the fifth-century cosmologists, and the difficulty that Plato encountered in answering it.* See also B. Castelnérac & M. Marion, *Antilogic*, pp. 8–13.

⁵ G. Grote, *Plato and the Other Companions of Sokrates*, p. 295.

4.2. *Unfolding and inspecting the consequences: deductive agility, critical vigilance*

Robinson is right when he writes that hypothesizing *entails the greatest possible cultivation of one sort of intuition, the intuition that this logically entails that*.¹ However, the consequences entailed by the hypothesis and its negation do not appear on their own. The second gesture of the *gymnasia* is less freeing and more laborious than the first. It consists of unfolding the consequences of the initial posture through deduction and scrutinizing them—a form of inspection.² The game is serious to the extent that it involves work. For the neophyte, it is difficult to see how to set in motion the unfolding of chains of consequences. How to proceed? Fragment 8 of Parmenides' *Poem* with its deduction of the features of being is the quintessential illustration of the type of deductive movement in question here. In Plato's *Parmenides*, the reader must wait until the training demo to see more precisely how, with the help of definitions, axioms and series of opposites,³ deductive reasoning reveals these consequences. In his demo, Parmenides, who has obviously cultivated this deductive agility, will unfold the chains of arguments at a dizzying pace. To avoid feeling stunned, we must keep in mind that this ease results from previous training. It was certainly gained, to a large extent, through rehearsal. I will return to the neglected topic of memory's role in Parmenides' *gymnasia*.⁴

This aspect will only become visible in the training demo, but let's evoke the hyper-vigilant or even hypercritical character of Parmenides' review of the consequences deduced. It may be more accurately described as an *inspection* than as an exploration. Parmenides embarks on a mission to reveal a multiplicity of difficulties in the form of contradictions and impossibilities.⁵ Whether such difficulties are real or apparent remains to be seen.

4.3. *Alternating multiple points of view: mobility, relational relevance, comprehensiveness*

In each case, the trainee will deductively unfold consequences from four different points of view. The question of exactly what it means to consider the consequences for hypothesized entities and their others *pros hauta* and *pros allela* (136b1–2 & b4) is much debated. Some neglect this aspect of Parmenides' instructions, while others attribute the greatest importance to it, such as

¹ R. Robinson, *Plato's Earlier Dialectic*, p. 109. Robinson also writes: *The assumption that truth comes in independent, selfcertifying [sic] packets is abandoned in favour of the assumption that our intuition that these propositions entail this proposition is more likely to be right than our intuition of any other sort of truth.* Parmenides and Socrates share this conviction.

² See R. Robinson, *Plato's Earlier Dialectic*, p. 105.

³ Such as one/many, whole/part, limited/unlimited, at rest/moving, etc. See Aristotle, *Top.* 163b20–27.

⁴ See Aristotle, *Top.* 163b22–32.

⁵ As B. Castelnérac, *Le Parménide de Platon et le Parménide de l'histoire*, p. 258, writes, it is as if *the primary objective of the method is to list all the problems related to the initial hypothesis in order to establish, at last, an affirmation that cannot be doubted.*

Meinwald who makes it the center of her interpretation.¹ Speculating at length on the distinction's meaning without considering the use Parmenides makes of it in his demo would be a waste of time. However, with extreme caution, it is possible to identify some of the basic intellectual capacities cultivated by the fourfold point of view, corresponding to two distinct cognitive operations.

First, the exploration of consequences requires that the trainee *alternate* the consideration of points of view. Even without understanding the exact nature of the relationship sought by the *pros*, it is certain that exploring a thesis from a variety of perspectives develops mental flexibility through the mobility involved in pivoting from one point of view to another. Intellectual mobility, already cultivated by the act of hypothesizing and by the unfolding of deductions, is certainly increased by the fourfold point of view. Exhaustiveness in exploring the consequences of a hypothesis from different points of view may be unattainable, but this aspect of the exercise makes it possible to develop a multi-positional or multi-directional vision well illustrated by Zeno when he alludes to the *comprehensive* and *circuitous* character of the treatment (136e1–3).²

Next, it should be noted that talking about a *fourfold* point of view is not precise enough insofar as two different relational dimensions intervene in Parmenides' instructions. Regardless of the difficult question of knowing what the *pros heauto* and *pros ta alla* types of orientation consist of, Parmenides recommends considering not only the hypothesized entity chosen, but *its others* as well. This implies trainees must first identify the others *of* the hypothesized entity. Now, even if they understood and accomplished that only, it would be a lot. Identifying a hypothesized entity or thesis' others requires and cultivates a sense of relevance. The *others* to be considered are the others *of* this entity or thesis.³ This clarification matters because Parmenides cannot mean that Socrates must consider the hypothesized entity in relation to all other possible things, which would be an infinite task. Most likely, he invites Socrates to consider the entity in light of other things that are particularly relevant to understand it. Either because they are opposed to it, or because they are related to it or have a privileged relationship with it, or because they resemble it in some respect and should not be confused with it, etc.

If Socrates hypothesized the Form of justice, for example, he would have to consider the consequences of its existence (or non-existence) also for *its* others. These others could include injustice, happiness, other related virtues such as equity, or different such as courage or piety. Identifying a given entity's others eventually makes it possible to embrace the particular network of relationships in which it is embedded and makes sense. Practicing this develops something like a sense of relevance, a relational instinct essential in philosophy and in the use of argumentation in general. We can be confident that the fourfold point of view cultivates this ability.

¹ For a list of interpreters corresponding to these two types, see P. Karfik, *Par rapport à soi-même et par rapport aux autres ...*, p. 141, n. 1.

² See Aristotle, *Metaph.* 995a25–b5.

³ Parmenides will explain this in the context of his training demo, see e.g. 164b–c.

To summarize, even while adopting a cautious, minimalist approach focused on Parmenides formal description, we can clearly perceive several Fundamental Cognitive Abilities or virtuous intellectual dispositions that the eightfold routine cannot fail to develop:

1. Doxastic detachment and an exploratory mindset.
2. Deductive agility.
3. Intellectual mobility and flexibility.
4. Comprehensiveness in considering perspectives on a given topic.
5. Critical (hyper-)vigilance.
6. A sense of relational relevance.

To this list of cognitive abilities, we can also add two moral virtues which are as relevant in the intellectual sphere as they are in the physical and social realm:

7. Courage and endurance.

That endurance is required and cultivated by Parmenides' exercise will become fully clear once he offers his demonstration. For, as any reader of the *Parmenides* can confirm, even trying to follow the training demo at one's own pace is a test of mental fortitude.¹ Moreover, the exercise can frighten. Following Parmenides on his circuit is a trial that tests someone's courage when faced with complexity and contradictions—real or apparent—generated by reasonings. In that regard, the preparatory virtue of the *gymnasia* is reminiscent of the immersive approach promoted by Socrates in the *Republic* when he suggests that youth should be brought on the edge of battlefields to safely observe the chaos of war (467c–e). The idea seems to be that this gradual exposure will act as a habituation process preventing them from succumbing to panic when later faced with action, in battle. Parmenides' *gymnasia* may well play a similar role on the intellectual level.

And finally, because of the length imposed by the systematic and comprehensive character of the circuit, the *gymnasia* exercises a capacity elsewhere assigned to philosophers,² namely:

8. Memory (and the attention it requires), a faculty to which I will return in section 5.8.

This list does not claim to be exhaustive. But my hope is that we can all agree on the idea that these eight Fundamental Cognitive Abilities and virtues will be gradually awakened and reinforced by the repeated performance of the routine described. Given the wealth of exegetic disagreements surrounding the training demo, using the *gymnasia*'s formal description to identify its most basic effects is a meaningful contribution. Moreover, this list teaches us something about philosophy as Parmenides understands it. Indeed, we can infer that for him, the application of these skills and virtues is necessary to support and protect one's quest for truth. Being the passive, unprepared recipient of a goddess' revelations just won't do.

¹ As R. Robinson, *Plato's Earlier Dialectic*, p. 264, puts it *even to follow these arguments is a strenuous undertaking*. The question to know if intellectual industriousness and mental endurance are moral or intellectual virtues is interesting. Plato often compares them to physical stamina, see *Rep.* 503e–504a & 504d.

² See Plato, *Rep.* 487a.

Now that Fundamental Cognitive Abilities have been identified, what remains to be discussed is the Complex Argumentative Skills and the Epistemic State of Insight that may be cultivated by the *gymnasia*. To do so, we need to consider the demo.

5. Parmenides' training demo

Let us first recall how it is introduced. Although well-disposed towards Parmenides' advice, Socrates is perplexed by the *gymnasia*'s description and asks for an example. Like a coach performing a routine in front of an apprentice, Parmenides agrees to give a demo. The entire *second part* of the *Parmenides* is devoted to this gymnastic performance. My decision to refer to it as the *training demo* highlights its close connection with the rest of the dialogue.¹ Offering a detailed review of the arguments it contains is unnecessary for my purpose, counterproductive even. What matters for my pedagogical reading is to see what general information can be drawn from the demo to understand the *gymnasia*'s preparatory scope, as well as the training method and telic mode it entails. Here, a problem arises.

5.1. The complexity problem

To ensure the credibility of my interpretation, I must explain the aspect of the *Parmenides* that constitutes the greatest obstacle to a pedagogical reading of the dialogue: the demonstration's infamous difficulty. How can such a complex verbal performance, whose meaning is so opaque, be considered pedagogical? Is there not a glaring contradiction? This is what I call the complexity problem.

First, it should be noted that not everyone considers the demo's complexity to be anti-pedagogical. It has been suggested, for example, that the perplexity caused by the demonstration's contradictions plays a propaedeutic role comparable to that of mathematics in the *Republic*.² Others have proposed that it compels the reader to discover a crucial philosophical distinction about the Forms which solves contradictions that are only apparent,³ or that it provides Plato's pupils with an opportunity to *exercise in the detection of errors in reasoning*.⁴

On the face of it, these proposals seem valid. However, they focus on the possible pedagogical and epiphanic effect of the demo on readers (ancient or modern), to whom they assign a huge responsibility in their own insight and progress. In fact, this responsibility is so high that these propositions only become plausible if we imagine pupils guided by a mentor using the text as teaching material. One can imagine, for example, a group of readers guided by

¹ The gymnastic vocabulary is present at 135d4, d7 & 136a2.

² See G. Grote, *Plato and the Other Companions of Sokrates*, p. 299 & S. Delcomminette, *La méthode du Parménide ...*, p. 357.

³ See C. Meinwald, *How Does Plato's Exercise Work?*

⁴ See R. Robinson, *Plato's Earlier Dialectic*, p. 223.

a master in the context of Plato's Academy. But these interpretations do not address the complexity problem from a dramatic point of view, internal to the dialogue. My challenge here is to explain how Parmenides' demo could be perceived as having pedagogical *by young Socrates*. More precisely, I must show how it was possible, for an ancient reader to perceive and appreciate the potential pedagogical value of Parmenides' demo for young Socrates.

My solution to the complexity problem is essentially historical. On the one hand, it highlights the link between the demo's object and the doctrine of the historical Parmenides. On the other hand, it assigns the perplexity felt by the modern reader to anachronistic expectations by recalling an important feature of ancient pedagogy that has become foreign to us: the central role of memory in learning.

5.2. A well-established school practice

To better understand the demo, let's start with simple contextual observations. Although these observations do not address the complexity problem directly, they have important exegetical consequences by narrowing the field of plausible interpretations.

First, it should be noted that the exercise demonstrated was not developed *for* Socrates. Its elaboration precedes the scene we are witnessing by a long time. It is a well-established school drill by means of which Parmenides once contributed to the dialectical training of Zeno. This simple fact suffices to dispel the idea that the exercise is intrinsically linked to the Forms. As Plato presents it, the Eleatic *gymnasia* was elaborated in a context unconnected to the theory of Forms, a theory here championed by young Socrates. Although the exercise can be applied to the Forms, it was not specifically designed to examine them and their properties, and its usefulness does not depend on them. It is true that Parmenides recommends that Socrates set aside the sensible and remain at the level of the Forms when practicing the exercise (135d3). But he gives us no reason to believe that this is what he, himself, was doing when he was training with Zeno decades ago, or even that this is what he will do in the demo that follows. In fact, his advice to Socrates not to imitate Zeno in that specific regard suggests the opposite.

Sophisticated interpretations centered on the idea that Parmenides' demo is specifically designed to reveal something *about the Forms* ignore this basic piece of information provided by the characters. They overcomplicate things. As stimulating as these readings may be, from the point of view of dramatic coherence, they are inadmissible.

5.3. Plato's Parmenides' choice and the historical Parmenides

For his performance, Parmenides chooses a familiar theme: his own thesis on the (All-)One.¹ Further simple observations follow from this. First, the fact

¹ See Plato, *Prm.* 137b: [...] *is it alright with you that if I begin with myself and my own hypothesis?* [ἀπ' ἑμαυτοῦ ἄρξωμαι καὶ τῆς ἑμαυτοῦ ὑποθέσεως] *Shall I hypothesize about the one itself* [περὶ τοῦ ἑνὸς αὐτοῦ]

that Parmenides chooses *his own thesis* as training object and that Socrates associates it with Parmenides' *Poem*¹ indicates that what Plato has his character say in the demo must faithfully reflect the theory of the historical Parmenides (as contemporary readers may have understood it at the time).

This allows interpreters interested in the historical Parmenides' ideas (and the way Plato received them) to approach the demo relatively independently from the rest of the dialogue, as a source from which to draw information on their topic of interest. Such a targeted thematic approach is not enough for those who wish to interpret the dialogue as coherent whole, which is my project. But it is compatible with it and complements it. For Plato can very well pursue several (compatible) objectives in the same text. In the *Parmenides*' case, the dialogue can both shed light on Parmenides' pedagogical contribution to Socrates' development, while offering a faithful overview of the Eleatic method and theory in the demo.

Of this Eleatic theory I will say but a word here. Some of the tools used by Parmenides in his demo reveal its cosmological tenor. I am thinking here of his reliance on twelve pairs of opposites to induce the multiple chains of deductions contained in each of the routine's eight figures. Most of these opposites (whole/part, limited/unlimited, straight/circular, at rest/in motion, etc.) only make sense in the context of a reflection on the nature of the sensible world.² Brisson is therefore right to postulate the existence of a corpus of cosmological *lieux d'oppositions* and to suggest that the whole demonstration deals with what was at the core of the historical Parmenides' philosophical reflection, namely the universe, in accordance with the pre-Socratic tradition.³ This interpretation supports and is supported by the recent rediscovery of Parmenides as a philosopher of nature.⁴

Similarly, and although this constitutes a more adventurous hermeneutic enterprise, approaching the demo independently from the rest is also justified for commentators curious about the possible link between the historical Parmenides' reflections on the One and the search for an unhypothetical principle as described by Socrates in the *Republic*.⁵ Again, although very different in their aims and method, such thematic interpretations of the demo's content are not incompatible with a holistic pedagogical interpretation mindful of the dramatic context. They only become questionable if they claim to explain the dialogue in its entirety.

ὑποθέμενος] [...]. (*All-*)*One* is my imperfect attempt to translate the thesis as described at 128a8–9, see next footnote.

¹ See Plato, *Prm.* 128a8–9: [...] σὸ μὲν γὰρ ἐν τοῖς ποιήμασιν ἐν φῆσι εἶναι τὸ πᾶν [...].

² Statements involving these pairs of opposites, which were not mentioned in the general description of the exercise, is what induces Parmenides' chains of deductions. The instruction to hypothesize and examine the consequences remained vague since nothing in itself follows from stating a hypothesis or denying it unless we consider that statement in relation with others.

³ See Platon, *Parménide*, tr. L. Brisson, pp. 47–73.

⁴ See L. Rossetti, *Un Altro Parmenide I* & L. Rossetti, *Un Altro Parmenide II*.

⁵ In: Plato, *Rep.* 510b–511b. See e.g. A. Pinchard, *Méthode des hypothèses ...*

Let's now return to the complexity problem. For the interpretations just described, i.e. inquiries animated by a theoretical interest for the doctrines of Parmenides and Plato, the demo's complexity is not problematic. In fact, Parmenides' choice of his own thesis partly explains the complexity of the demonstration. Paradoxically, the demo would have been simpler had Parmenides chosen a less primordial object than the One! From a pedagogical point of view, we are free to question his decision. But if one accepts the idea that the demo offers a relatively faithful portrait of the historical Parmenides and his theory, this choice must simply be accepted as a state of affairs. And Parmenides' preference makes sense from a psychological point of view. Not only is this his own theory (with which he is very familiar and worked hard to disseminate and defend), but we can understand why such an accomplished philosopher would choose to start with a performance likely to impress. Who would expect an Olympic champion to provide a gymnastic demo that even a complete beginner could accomplish?

However, let's not forget that Parmenides presents his demo as a way of getting started with the training.¹ This suggests that other *rounds* of exercise will follow, as Sandra Peterson put it. The dialogue ends abruptly after the first round, but nothing prevents us from imagining that, after having dazzled his audience, Parmenides will invite Socrates to begin his training with a more modest object. Something like mud, who knows, since he previously disapproved of Socrates' disregard for such undignified subjects (130c, see *Tht.* 147a, where Socrates takes mud as an object of exercise).² Moreover, once Socrates starts applying the exercise to the objects that really interest him, it will certainly need to be modified. As a preparation to define moral virtues, for example, some pairs of opposites useful in the context of a cosmological inquiry will remain relevant (the whole/part, similar/dissimilar pairs are good examples), but most will prove useless. It is difficult to see how Socrates could apply spatial categories (e.g. in contact/not in contact, at rest/in motion), to an object such as the Form of justice, for example. My point is that we can suspect that applying it to different, less abstract objects will lead to a simplification of the exercise.

5.4. The impossibility of a skeptical or sophistical interpretation of the demo

Parmenides' choice of his own thesis has another major consequence for the interpretation of the demo which further reduces the range of possibilities while supporting a pedagogical reading. Plato's Parmenides, like the historical Parmenides, has his own theory on the (All-)One and considers it to be true. This means that no matter how disconcerting the final summary of the deductions may be at first sight, the application of the eightfold routine to Parmenides' thesis does not lead to his theory's rejection. For then one would have to

¹ See Plato, *Prm.* 137a–b: *Well then, at what point shall we start? What shall we hypothesize first? [...] is it alright with you if I begin with myself and my own hypothesis?*

² Given that later in life, Socrates will be known for using examples taken from everyday life, crafts in particular, Parmenides' suggestion seems to have had an impact.

conceive of Plato's character as incoherent, which fits neither with the dramatic context, nor with the admiration Socrates expresses towards Parmenides elsewhere in the dialogues. We must accept that Parmenides sees the exercise as confirming his theory either directly, or, more plausibly, indirectly by revealing how negating it leads to impossible consequences. This means that many of the contradictions that make the demo so perplexing must be only apparent and/or less aggravating than others. To show how this works is not my purpose here, but this general fact is good news for a pedagogical interpretation of the dialogue. Approaching the demo in a sophisticated or skeptical spirit, as a formidable *reductio ad absurdum* to which nothing would resist, would make a pedagogical interpretation impossible. Subjecting apprentices like young Socrates and Aristotle to such a brutal treatment would probably lead them to misology. But luckily for the pedagogical interpretation, Parmenides' choice of object disqualifies skeptical and sophisticated interpretations of the demo. Its intended final outcome can't be mere confusion.

5.5. The *gymnasia* as preparation for synoptic judgment and Epistemic State of Insight

For those who wish to get clear of difficulties it is advantageous to state the difficulties well; for subsequent free play of thought implies the solution of the previous difficulties, and it is not possible to untie a knot which one does not know. [...] Therefore one should have surveyed all the difficulties beforehand [...] because people who inquire without first stating the difficulties are like those who do not know where they have to go; besides, a man does not otherwise know even whether he has found what he is looking for or not; for the end is not clear to such a man, while to him who has first discussed the difficulties it is clear. Further, he who has heard all the contending arguments, as if they were the parties to a case, must be in a better position for judging.
(Aristotle, *Metaph.* 995a24–995b4)

Parmenides does not explicitly mention this final stage in his formal description of the exercise. But it can safely be assumed that the *gymnasia* prepares the ground for a critical review of all consequences laid out through the performance of the eightfold routine on a given subject to see what emerges. Let's call this stage the stage of synoptic judgment, or Epistemic State of Insight.¹ This is where the heuristic potential of the exercise' structure appears. For if, in examining what follows from each of the contrary hypotheses, one perceives one or more flagrant and insurmountable impossibilities either on the side of the positive hypothesis, or on the side of its negation, the principle of non-contradiction indicates that the truth necessarily lies on the other side of the alternative. As Aristotle points out: [...] *as contributing to knowledge and to philosophic wisdom the power of discerning and holding in one view the results*

¹ Her interpretation is different, but M. Dixsaut, *Le Naturel philosophe ...*, p. 319, also insists on this *synoptic* character.

of either of two hypotheses is no mean instrument; for it then only remains to make a right choice of one of them (*Top.* 163b8–12).¹

This stage involves comparing and recognizing (*seeing*) that one side of the alternative cannot fail to be the case if it turns out that the other side *absolutely cannot* be the case. Despite the hypercritical antilogical orientation that becomes obvious in Parmenides' training demo (contradictions, real or apparent abound!), the hope seems to be that scanning all possibilities with the eightfold routine prepares the ground for synoptic judgment. This prospector work makes it possible to determine *where* the truth lies, so to speak, on a given subject, if only indirectly through a process of critical elimination.² Aristotle—the historical philosopher, not the young Aristotle of the *Parmenides*—is the perfect example of the fruitfulness of this method. Several historians of philosophy have drawn attention to the Stagirite's frequent use of some elements of the *Parmenides*' *gymnasia* in his scientific works (including the critical consideration of opposite theses' consequences and the systematic examination of *aporia*).³ Interestingly, in a study on the legacy of the historical Parmenides, Leshner characterizes the *parmenidean* *elenchos* as a *serial critique of the merits of each of the available ways of thinking and speaking [about what is], legitimizing one while repudiating the other*. He emphasizes that for Parmenides *the decision between "it is" and "it is not" [...], must be thought of as covering the entire process of argument through which the "is not" way is set aside*.⁴ It seems, then, that the structure of the *gymnasia* of Plato's *Parmenides* corresponds to the *serial critique* trial method used by the historical philosopher and later adopted by the Stagirite.

In the *Parmenides*, the signs that this synoptic stage matters to the Eleatics—and that they consider having reached it—are discreet but quite clear. First, there is the series of allusions, already mentioned, to *truth* as the goal of the philosophical quest. Second, there is the comparative used by Zeno (128d5: *γελιοῦτέρα*) to qualify the consequences arising from the thesis of Parmenides' opponents. This comment indicates that Zeno reviewed and compared the consequences of contrary hypotheses and considers himself in a position to make an informed judgment. Obviously, his remark implies that the consequences arising from Parmenides' thesis also lead to absurdities. But after meticulous and exhaustive inspection, these difficulties appear to be *less* ridiculous than the consequences flowing from the contrary thesis. Maybe these difficulties are not absolute impossibilities, giving hope that they are only apparent and can be

¹ For more on this, see E. Berti, *Aristote et la méthode dialectique du 'Parménide' de Platon*, p. 351.

² This solves what R. Ferber, *Second Sailing towards Immortality and God ...*, p. 380, calls *the problem of the hypothesis* or problem of the *unproved principle* at least in the context of the eightfold routine of *Parmenides*. That said, the hypothetical process does not allow to reach truth directly and the conclusion obtained cannot be detached from the whole antilogic investigation.

³ See P. Moraux, *La joute dialectique ...*, p. 290, and especially E. Berti, *Aristote et la méthode dialectique du 'Parménide' de Platon*, pp. 352–358, who goes so far as to say: *It is possible to show that Aristotle, in most of his philosophical inquiries, and not only in his lectures on the history of philosophy, employs no other method than that proposed by Plato, especially in the Parmenides*.

⁴ J. H. Leshner, *Parmenidean Elenchos*, p. 34. See also p. 32.

resolved? Be it as it may, despite the difficulties that ensue, Parmenides' confidence in the truth of his theory about the universe as one remains unshaken. In his old age, he still subscribes to it (128a–b & 137b). Again, insisting on this point is crucial because Parmenides' adherence to his theory (which he refers to as his *own hypothesis* in 137b2–4) attests that the *gymnasia's* spirit is not antilogical in a sophistic, skeptical, and pessimistic sense.¹ The Eleatics are hypercritical and vigorously agonistic, but the relentlessness with which they hunt down contradictions and *aporia* is the measure of their desire for truth.²

However, now that this has been emphasized, the following must be strongly reasserted: in Plato's *Parmenides*, Parmenides presents his training not as a method for attaining the truth *per se*, but rather as *preparatory* gymnastics practiced *in youth*. Any interpretation that does not do justice to the *gymnasia's* preparatory function is defective. Again, the temporary, propaedeutic character that Parmenides attributes to his *gymnasia* excludes telic mode (A) where exercise and final goal coincide.³ The training is not autotelic. To fully do justice to the *gymnasia's* propaedeutic function, it is therefore appropriate to back up and underscore that, although the training prepares the ground for it, the stage of synoptic judgment does not belong to the *gymnasia* as such. Parmenides did not mention this operation in his formal description of the exercise, which is understandable. For while this ultimate stage involves the activation of an intellectual faculty (that of *perceiving* where the truth must lie in contrast with where it cannot lie), it is doubtful that the *gymnasia* contributes to developing this capacity. All that can be said is that performing the *gymnasia* prepares the ground for its activation—not by training or perfecting this faculty, but simply by giving it something to *see*.⁴

5.6. Complex Argumentative Skills cultivated by the *gymnasia*: antilogy and the practice of *elenchos*

If we were training boxers or pancratisers or competitors in some similar contest, should we go straight into the ring unprepared by a daily work-out against an opponent? If we were boxers, surely we'd have spent days on end before the contest in strenuous practice, learning how to fight, and trying out all those maneuvers we intended to use when the

¹ If Parmenides and Zeno remain optimistic, there must be a reason. Contra R. Robinson, *Plato's Earlier Dialectic*, p. 280, according to whom [t]he methodological aspect of the *Parmenides* thus seems to be, like its other aspects, bewildering, sceptical, and depressing and contra C. Zuckert, *Plato's Parmenides: A Dramatic Reading*.

² See B. Castelnérac, *Le Parménide de Platon et le Parménide de l'histoire*, p. 252 & M. Gardella, *Antilogía y gimnasia intelectual*, p. 30. Are some arguments in the training demo faulty? Even if it is the case, it does not necessarily imply that Parmenides does not care about the quality of arguments and about truth. Other explanations are possible.

³ The eightfold routine does not become an obsolete preparation once the synoptic stage is reached. The terrain covered with the routine is integrated into the synoptic stage so to speak. See Aristotle, *Metaph.* 995a36–39 & J. H. Lesher, *Parmenidean Elenchos*, pp. 32–35.

⁴ The end of Aristotle's reasoning previously quoted is as follows: *For a task of this kind a certain natural ability is required: in fact real natural ability just is the power rightly to choose the true and shun the false* (*Top.* 163b8–15). See Plato, *Rep.* 518c & e.

time came to fight to win?
(Plato, *Lg.* 830a)

Another way of highlighting the preparatory function of Parmenides' *gymnasia* is to show how it contributes to the development of Complex Argumentative Skills which can be used as a form of defensive, intellectual marital art. To illustrate this, let's once again recall the agonistic context in which Parmenides urged Socrates to imitate Zeno. Faced with the aporia raised by Parmenides' questions, Socrates was unable to defend his theory of Forms. Time after time, he got stuck. For once in the Platonic corpus, Socrates is refuted! Seeing a sharp young philosopher embracing a particularly bold and counterintuitive thesis—thus emulating the Eleatics—Parmenides may have been particularly sensitive to Socrates' vulnerability. Being able to defend oneself dialectically can take various forms. One can train to resist elenctic attempts, or one can develop *offensive defense* mechanisms like the Eleatics did. Offensive defense strategies include elenctic cross-examination (this is the strategy Parmenides employed to neutralize Socrates after Socrates had attacked Zeno) and *reductio ad absurdum* of adversarial arguments (like Zeno did with Parmenides' adversaries). Either way, these agonistic uses of dialectics require familiarity with antilogy, a central feature of the demo.

Showing precisely how the *gymnasia* endows the trainee with an antilogical arsenal would require a separate study. But making the general suggestion that a systematic rehearsal of the possible consequences of a pair of contradictory hypotheses on a given subject will equip trainees to perform (or resist) an elenctic cross-examination on that subject, or to produce a *reductio ad absurdum* on that subject (in oral or written form) seems uncontroversial.¹

But how? How—from a very general point of view—does the *gymnasia* provide trainees with skills and tools that enable them to lead others to contradiction, and to resist refutation themselves? First and foremost, thanks to the scanning work alluded to earlier. Like an attentive prospector, the trainee scrutinizes a specific argumentative terrain by being on the lookout for all possible difficulties. This prospective work makes it possible to anticipate the directions adverse arguments could take and thus avoid contradictions, or conversely lead others to contradiction by identifying the premises likely to provoke them. In addition to the Fundamental Cognitive Abilities already mentioned, we can therefore think that the *gymnasia* equips philosophers in training with more Complex Argumentative tools, allowing them to defend their theories against opponents. It is a kind of gymnopedia in the agonistic sense.

This suggestion has historical respectability since it is precisely what Aristotle means, in his *Topics*, when he recommends exercises obviously inspired from Plato's *Parmenides* to prepare for the practice of dialectic.² In this

¹ See L. Godin-Tremblay, *Le Raisonnement dialectique ...*, pp. 90–91.

² On the need for both participants to prepare by organizing and anticipating arguments, see Aristotle's *Top.* 155b sq. & P. Moraux, *La joute dialectique ...*, p. 281. Aristotle also appreciates the preparatory value of the exercise consisting in finding arguments for and against a thesis. See *Top.* 163a36–b9 & P. Moraux, *La joute*

treatise, Aristotle emphasizes the preparatory benefits of exploring contrary hypotheses for dialectic, but he does not mention Parmenides' *fourfold point of view*. Now, including this perspectival dimension in the training certainly enhances one's preparation for the practice of *elenchos*. Indeed, given the role played by contradiction in refutation, and given the crucial role played by points of view in the correct use of the principle of (non)-contradiction (saying of A that it is B *and* not B is not necessarily contradictory depending on the point of view considered),¹ it is reasonable to think that the practitioner of Parmenides' *gymnasia* will be particularly well equipped to avoid refutation and to generate real or apparent contradictions with defensive intent, according to the need of the moment.

5.7. Aristotle's *Topics* and the demo as a *learning X through Y* preparation

Even if Socrates does not say a word during the performance of the demo, the scene is somehow triangular since it is for his benefit that Parmenides offers his demo with the assistance of young Aristotle. But when used to exercise *for real*, who is the *gymnasia* training? The demo involves two people interacting in the dialogic form of question and answer (very short questions and even shorter answers expressing agreement or disagreement). And possibly also, an audience, like in the scene displayed in the dialogue. Now, who is trained, the questioner or the respondent? Is Socrates invited to imitate Parmenides or young Aristotle?

I propose to see the role of the questioner as that of a pedagogue forcing a young apprentice, the responder, to follow him on an expedition to canvas a vast argumentative field. At first, the respondent (here: young Aristotle) follows obediently, without making difficulties (137b6–7). But we can imagine that the apprentice will eventually become more active by performing the routine in the position of questioner this time, while another less experienced fellow practitioner will take on the role of respondent. Hence, if young Socrates and young Aristotle were to join the Eleatic school, after having sufficiently absorbed the routine and the specific arguments it contains more passively, they would no doubt be encouraged to go through the same series of deductions about the (All)–One in the role of questioner this time, a more active role of leader here played by Parmenides.

Some have compared Parmenides' *gymnasia* to the dialectical jousts evoked by Aristotle in his *Topics*. Dialectic, in the context of Aristotle's *Topics*, refers to highly formalized refutative jousting matches—or *eristic moots* as Ryle calls them²—in the form of an elenctic dialogue between a questioner and a respondent.³ There are similarities, but they must be treated with caution.

dialectique ..., pp. 303–304. Although different, the eightfold routine is an even more powerful preparation thanks to the multiple *aporia* and contradictions it reveals.

¹ See Plato, *Rep.* 436d–437a, Aristotle, *Metaph.* 1005b19–20 & B. Castelnérac & M. Marion, *Antilogic*, pp. 8–13.

² G. Ryle, *Plato's Progress*, p. 110 & p. 200.

³ See P. Moraux, *La joute dialectique ...*.

Although Parmenides' demo involves an exchange between a questioner and a respondent, it is a mistake to view their exchange as a dialectical joust strictly speaking. For in a dialectical joust, the respondent's mission is to defend the opening position, while the questioner goal is to get the respondent to contradict himself and thus refute a given thesis. In the demo, the starting position corresponds to Parmenides' thesis on the (All-)One. Parmenides did not charge young Aristotle with the mission of defending this thesis. By asking him to respond to assertions presented as questions, Parmenides simply invites Aristotle to be attentive and follow him in the exploration of the consequences that unfold when the thesis is affirmed or denied from four points of view, in relation to several pairs of opposites. The fact that young Aristotle technically *responds* to Parmenides' *questions* is therefore not sufficient to make him a respondent in the same way that Socrates was a respondent in the context of the Elenctic examination to which Parmenides subjected him earlier. Unlike Socrates who endorsed a specific theory and tried to defend it, young Aristotle does no such thing. The dialectical jousts mentioned by Aristotle in his *Topics* are much closer to the refutational examination to which Parmenides subjects Socrates in the first part of the dialogue than to his training demo.

Let me stress, then, that the so-called second part of Plato's *Parmenides* is not an illustration of the dialectical matches Aristotle refers to in this treatise.¹ In my view, the *gymnasia* constitutes a possible preparation for, not an iteration of this type of elenctic game. Despite the affinity between our interpretations, I therefore disagree with Ryle when he affirms that *Part II of the Parmenides* [...] *exemplified in rigorous form the gymnastic dialectic of which Aristotle's Topics is the Art.*² In my view, it is the practice of *refutation* that Aristotle's *Topics* is the art of (or rather, theory). And Parmenides' *gymnasia* constitutes a propedeutic training for that practice. Ryle himself concedes this when he elsewhere describes *Aristotle's Art of dialectic* as *the technology of the Socratic method*³ or declares: *What Aristotle's Topics teaches the theory of, [Plato's] eristic dialogue teach, by example, the practice of.*⁴ To use my distinction between two training modes, we can say that the formalized matches opposing a respondent and a questioner Aristotle alludes to in his *Topics* constitute a *learning X through X* training method. In a school context, it prepares trainees for the practice of *elenchos* in real life situations where cross-examination is required, such as Parmenides' cross-examination of Socrates. Meanwhile, Parmenides' *gymnasia* constitutes a *learning X through Y* training method that equips someone for the practice of *elenchos* through the systematic exploration and rehearsal of arguments. When rehearsed with the *same* hypothesis, the *gymnasia* ensures that a multiplicity of possible arguments on a given subject—such as those contained in the demo—are kept in memory and ready to use when

¹ Contra B. Castelnérac & M. Marion, *Antilogic*, p. 6.

² G. Ryle, *Plato's Progress*, p. 291 & p. 19.

³ G. Ryle, *Plato's Progress*, p. 103.

⁴ G. Ryle, *Plato's Progress*, p. 210.

the need arises. In his *Topics*, Aristotle emphasizes the value of a training based on the exploration of a thesis and its negation. This is a solid preparation for the practice of *elenchos* as a respondent or questioner in a variety of contexts. It is this kind of homotelic and heterotelic preparatory exercise that we find in *Parmenides*' demo. The Eleatic *gymnasia* helps *prepare* for the practice of *elenchos* both in pedagogical contexts (argumentative wrestling matches organized in a school as a form of *learning X through X* training) and in real life agonistic contexts be them legal, political, or philosophical.¹

In retrospect, it is interesting to see how Parmenides used certain argumentative *topoi* included in his *gymnasia* (the pair of opposites whole/parts in particular) when he cross-examined Socrates' commitment to the theory of Forms earlier in the dialogue. In an agonistic context, such as the real philosophical refutation displayed in the first part of *Parmenides*, there is no need to deploy all arguments rehearsed in the *gymnasia*. The questioner simply chooses the most effective *argument-combinations*, or *argument sequences*² to put the respondent to the test. Using Parmenides' *gymnasia* to train with specific Forms would allow young Socrates to be better equipped either to put others to the test on the ethical subjects that matter to him, or to defend his theory of Forms in case of attack. This may have been Parmenides' hope when he saw young Socrates so exposed and defenseless during the cross-examination to which he submitted him.

5.8. When competence precedes comprehension: arguments rehearsal and memorization

The rehearsal component of the *gymnasia* allows me to address the complexity problem from yet another angle. In my opinion, a major source of the perplexity caused by the demo is due less to the text than to the expectations with which modern readers approach it. We tend to forget that there are substantial differences between modern and ancient pedagogy, some of which we have become ill-equipped to even perceive. A way to appreciate such a difference is to approach the demo as candidly and honestly as possible without focusing too much on its content. What is it that we see when we look at Parmenides' demo not with a conceptual microscope in hand, but from a bird's eye view?

The image of someone taking the plunge and swimming across a sea of arguments (137a6) rings particularly true. From the moment Parmenides dives in, the motion is non-stop. Parmenides strings together dozens of arguments as if he was on a mission to cover a circuit from start to finish. He obviously doesn't improvise; the circuit is already mapped out and nothing slows down his pace. Relying on the same pairs of opposites in each of the eight sets of deductions, the arguments, devoid of any depth, are presented in skeletal form.

¹ See Plato, *Lg.* 830a–e for enlightening explanations on the connection between exercise for the sake of preparation and the practice of war. See also R. Robinson, *Plato's Earlier Dialectic*, p. 279: *The athlete training his body is not actually competing in public games or fighting a battle; he is only making himself more capable of doing so. The dancer working at the bar is not actually dancing, but only making herself more capable of dancing in the future.*

² I borrow these expressions from G. Ryle, *Plato's Progress*, p. 200 & p. 202.

Nothing is truly explained, there is no room for common research, no substantial interaction. Parmenides shows little interest in what young Aristotle understands or does not understand. His questions are purely rhetorical, and the main function of Aristotle's brief replies seems to be to allow Parmenides to catch his breath (137b8), like a swimmer regularly sticking his head out of the water. If one's hope is to find a thoughtful philosophical exchange, Parmenides' demo necessarily appears opaque and disconcerting—exasperating even. It seems closer to a game of verbal ping pong than a common search for truth. But precisely, nothing suggests that we are here witnessing the moment of inquiry in a quest for truth. Parmenides describes his *gymnasia* as a *laborious game* which provides one with a preparation. But in what sense does this long string of skeletal arguments provide a preparation?

My suggestion is the following. The best way to account for the characteristics mentioned (i.e. the mechanical journey through a pre-established circuit, the speed and lack of depth, the absence of real questioning and exchange, the lack of concern for the respondent's level of comprehension, etc.) is that Parmenides is here essentially engaged in a recollection exercise. The *gymnasia* is a rehearsal in the musical or theatrical sense of the term, a kind of mental gymnopedia but out loud, and with the contribution of a rehearsal partner. Nothing Parmenides utters is discovered at the time he says it. I'm not suggesting that Parmenides does not mean what he says. But he is not, here, engaged in an attempt to discover something new, or think inquisitively about the arguments raised, or even explain them. Parmenides rehearses what he has found, elaborated, thought in a previous context. He reviews *du déjà pensé* and evokes only the essentials.

It would therefore be the memorization of certain arguments, in condensed form, that the exercise would require and reinforce. As Ryle puts it, [*l*]ike the chess-player's combinations, tried argument-sequences can be learned by heart and studied for their strengths and weaknesses, and the successful ones can be, en bloc, become part of the common repertoire of all who may ever debate the same thesis.¹ This explains the emaciated nature of arguments about which one could use more explanations if we were in the context of a philosophical discussion. The *gymnasia* is not an occasion to deepen, search, question, clarify, explain. It consists in following and then learning the arguments recited by heart, an ancient pedagogical method completely depreciated today.² As a modern reader, one is surprised to learn in the prologue of the *Parmenides* that Antiphon, in his youth, memorized the entire conversation described in the dialogue (126c–127a). Given the ancient way of learning, however, this is nothing particularly odd. No one in the dialogue expresses surprise. My suggestion is that, similarly, when reading the demo part of Plato's *Parmenides*, ancient readers were able to recognize that they were faced with a form of

¹ G. Ryle, *Plato's Progress*, p. 198. To my knowledge, Ryle is the only interpreter who fully appreciates the role of learning by heart through rehearsal in dialectical training. On this, see pp. 198–202.

² On the role of recitation and memorization in ancient education see E. A. Havelock, *Preface to Plato*, pp. 42–49.

rehearsal. What strikes us as abstract, complex, and obscure in light of our modern expectations simply appeared to ancient readers as a recitation exercise awaiting elucidation in a different context. Such is my suggestion.

That being said, the following point must be emphasized. The fact that Parmenides' demo does not correspond to a truth-seeking activity in no way means that it is not connected to truth at all. The arguments perused through the *gymnasia* coincide with the truth, reveal it to some extent, and help both participants to eventually access it. The disciple, in the position of respondent, is invited to follow Parmenides in the circuit's performance. He listens and absorbs. If he has questions, we can assume they will be addressed later, in the context of a real discussion, and that explanations will be provided. The pedagogical principle at play in the eightfold routine, it seems to me, is to learn first and understand later. This type of process is well described by philosopher of mind Daniel Dennett who highlights that *competence precedes comprehension* in the development of many cognitive abilities.¹

Now, if we are not here presented with a *discovery* of truth about the (All-)One, what method did Parmenides use to discover the truth in the first place? Although it is not mentioned, nothing prevents a philosopher to resort to a method similar to the eightfold routine in a different context and at a different pace. However, what Parmenides accomplishes here before us is not the moment of exploration, of research, and discovery—or of teaching *per se*, for that matter, if by *teaching* we mean an activity that aims at inducing deep understanding. The rigid and almost mechanical nature of the routine excludes it. Not unlike the pupil memorizing conjugations or multiplication tables, or the musician playing scales, the *gymnasia* is essentially a matter of acquiring skills and abilities through repetition. It is therefore understandable that this training is reserved for youth and that offering a demonstration of it in public is not appropriate.

6. Conclusion. Where did Socrates' intellectual virtues and argumentative skills come from?

Let's think of the intellectual virtues that distinguish Socrates as a mature philosopher. Then, let's consider the Fundamental Cognitive Abilities developed by Parmenides' *gymnasia* previously identified: doxastic detachment, deductive skills, sense of relational relevance, mobility, critical hyper-vigilance, mental endurance and courage. The correspondence is striking and suggests that Socrates followed Parmenides' advice and trained thoroughly. However, we are here in the realm of the plausible. Indeed, the basic nature of these intellectual excellences does not allow us to assign their origin to Parmenides' *gymnasia* with certainty or exclusively. We don't know how, but Socrates could well have developed these abilities otherwise.

However, when combined with Socrates unparalleled mastery of *elenchos*, which is a Complex Argumentative Skill that can't plausibly be developed solely through a direct or *learning X through X* training method, pieces of

¹ See D. Dennett, *From Bacteria to Bach and Back*, pp. 57–58.

evidence accumulate. The case becomes more conclusive.¹ Note that with his *Parmenides*, Plato clearly indicates that Socrates *did not* master the art of *elenchos* when he met the Eleatics. Not only did Socrates fail to answer Parmenides' objections to his theory of Forms, but he himself did not adopt the interrogative approach characteristic of elenctic cross-examination when he challenged Zeno's argument (128a–130a). He therefore acquired this competence subsequently. This leads to an interesting possibility: Socrates became Socrates, virtuoso of the *elenchos*, thanks to the contribution of the Eleatic philosophers made to his education when he was a *neos*.² Such is the account provided by Plato in any case.

A pedagogical interpretation of *Parmenides* as I have begun to develop it here provides an answer to the question posed by Sandra Peterson, namely *how the exercise* [prescribed by Parmenides] *connects with the type of person that Socrates was*.³ We could reply that Parmenides' pedagogical intervention enabled Socrates to become the remarkable philosopher we know (through Plato) by developing in him two opposite sets of intellectual dispositions. First, the mobility and a deductive agility allowing him to examine a question from all possible angles. And second, thanks to the recourse to hypothesis and to the elenctic skills cultivated by the *gymnasia*, a stability and a confidence generally reserved for the dogmatic believer but perfectly compatible with Socrates' declaration of ignorance. Mobility and stability, confidence and hypervigilance, those dispositions cultivated by Parmenides' *gymnasia*, are equally essential for the philosopher in search of truth—both to engage in this quest and to protect it.

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¹ Concrete pieces of textual evidence are found in the *Phd.* as I show in: A. Larivée, *What did Socrates Learn from Parmenides. Part 2*.

² I explain my position on the link between Socrates as an historical figure and Socrates as a Platonic dramatic character in: A. Larivée, *What did Socrates Learn from Parmenides. Part 2*, section 1.1.

³ See S. Peterson, *New Rounds of the Exercise of Plato's Parmenides*, p. 272. Peterson specifically alludes to Socrates as a philosopher investigating *ethical notions* with the aim of living a *good life*. Although Parmenides may not be responsible for Socrates' conviction that the good life and ethical notions as the most important objects of philosophical inquiry, he did provide him with the tools necessary to persist in his philosophical quest. And since Socrates is convinced that the quest for truth is essential in a good human life (see *Ap.* 38a), my analysis provides an answer to Peterson's question.

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