INTERDISCIPLINARITY AS A WAY OF LIFE

MICHAEL CHASE

CNRS, Centre Jean Pépin

There is no man who has not been a follower of Plato, at least for a moment of his life [...] Who has not experienced how the insuperable wall between subject and object crumbles and breaks, how the Ego leaves the confines of its egotistical isolation, breathes the sublime air of knowledge as deeply as it can, and becomes a single thing with the entire world?¹

Part 1. Pierre Hadot on philosophy as a way of life

We owe to the late Pierre Hadot the idea of "philosophy as a way of life"². What he meant by this was that philosophy, in Greco-Roman Antiquity, was not mere discourse, an intellectual pastime akin to solving a crossword puzzle; nor was it the construction of elaborate metaphysical systems and the writing of treatises in which such systems were set forth. Instead, it had to do with the way people live their lives. It consisted above all in a set of techniques for carrying out a transformation of the human personality, by means of what Hadot named "spiritual exercises". These exercises or transformative practices were "spiritual" in that they engaged not only the human intellectual faculty, but the entire person, including desire and the imagination. By means of this transformation, the philosopher could hope to leave behind the isolation of her individuality, rising to the level of the Logos, or universal Reason³, and achieving a

¹ FLORENSKY, Pavel. Obščečelovečeskie korni idealizma. In: _____. Sočineniya v četyrekh tomakh. Moskva, 1999. v. 3.2, p. 146. "The universal human roots of Idealism".

² See HADOT, Pierre. *Philosophy as a Way of Life:* Spiritual Exercises from Socrates to Foucault. Edited with an Introduction by Arnold I. Davidson, translated by Michael Chase. Oxford: Basil Blackwell, 1995; and the contributions in CHASE, Michael; CLARK, Stephen R. L.; McGHEE, Michael (Ed.). *Philosophy as a Way of Life:* Ancient and Moderns. Essays in Honor of Pierre Hadot. Chichester: Wiley Blackwell, 2013.

³ It is true that Hadot sometimes (once, to my knowledge, cf. HADOT, 1995, p. 82) speaks of the individual "raising himself up to the objective Spirit". But this does

state of peace of mind, freedom, and intensification of her being.

Pierre Hadot has shown that this conception of philosophy as a way of life was closely linked to the historical, political and socio-economic circumstances of Antiquity, in which philosophical training was handed down from master to disciple by means of dialogue. Ancient philosophical writings are therefore "echoes, direct or indirect, of oral instruction"⁴; and if they sometimes seem to us to be confusing or badly written, this is because "they are series of exercises, intended to make [students] practice a method, rather than doctrinal expositions". Once the headquarters of the four main Greek philosophical schools were more or less destroyed in the first century B.C., however, philosophical teaching, now dispersed throughout the Empire, could no longer be carried out by oral transmission from master to disciple, and philosophy gradually assumed the form of commentary on texts by the founding figures of each school⁵.

From the Middle Ages until today, the academic study of philosophy gradually became discourse *on* or *about* philosophy, rather than the practice thereof. It is, of course, neither possible nor desirable to recreate ancient teaching conditions today. However, I suggest that the practice of interdisciplinarity, properly understood, can play a role similar to that of the spiritual exercises of antiquity in the revitalization of philosophy today.

1.1 Happiness and self-involvement

A recurrent theme in Pierre Hadot's works is the insight that the reason many of us are unhappy much of the time is that we are too wrapped up in ourselves. Each of us thinks he or she is the center of the universe, and that his or her problems, whether minor or major – and even our minor problems have a way of becoming major very quickly, especially

not suffice to make him a Hegelian, as P. Vesperini believes ("Pour une archéologie comparatiste de la notion de « spirituel ». Michel Foucault et la « philosophie antique » comme « spiritualité »", Colloque *Michel Foucault et les religions*, organisé par Jean-François Bert, Université de Lausanne, 22-24 oct. 2014).

⁴ HADOT, Pierre. La philosophie: une éthique ou une pratique? In: DEMONT, P. (Ed.). Problèmes de la Morale Antique, sept études. Amiens: Faculté des Lettres, 1993. p. 7-37. Cf. p. 11. Cf. HADOT, 1995, p. 62.

⁵ Cf. DAVIDSON, Arnold. Introduction. In: HADOT, 1995, p. 1-45. Cf. p. 5, with references to works by Hadot.

when we are alone – are the most important things in the world. For Hadot, following what he takes to have been the view of ancient Greek and Roman philosophers, happiness is concomitant upon or identical with the realization that this view of ourselves as isolated individuals is the result of an erroneous way of looking at the world.

I will need to flesh out this suggestion, because as it stands one will rightly wonder what all the fuss is about: surely such an idea is banal and self-evident. But Pierre Hadot made it the basis of a new interpretation of ancient philosophy, one that has begun to have an impact in other fields as well⁶.

What all the ancient philosophical schools had in common, Hadot claims, was their goal: achieving happiness or peace of mind. And this goal was to be achieved, not so much by analysing arguments or writing philosophical treatises – although these activities could also have a spiritual or formative aspect⁷ – as by practicing a series of exercises designed to change our way of perceiving reality, and hence our mode of being.

Platonists, Aristotelians, Stoics, Epicureans, Cynics and Sceptics defined happiness differently, although most would agree, Hadot claims, that it is closely related to, if not identical with, self-realization, autonomy, and freedom. Achieving this freedom entails controlling our passions, which tend to enslave us to external things that are beyond our control, and contribute to engendering the isolated perspective that is the source

⁶ Hadot's approach has been used in highly fruitful ways by scholars of Islamic (M. Azadpur, S. Rizvi), Indian (J. Ganeri), and Jewish thought (FISHER, C. Contemplative Nation: A Philosophical Account of Jewish Theological Language. Stanford: Stanford U. P., 2012; cf. the bibiliographical indications p. 256-7, n. 4-5). Other fields in which Hadot is often cited with approval include ecology, feminism, management studies, and the philosophy of sports. The notion of spiritual exercises, of its part, has been applied to theater (PAES, Isabela. *Mouvement:* individualisation et transformation: une approche ethnographique de l'Odin Teatret. Dissertation Télécom Ecole de Management/Université d'Evry Val d'Essonne, 2011), and science and mathematics in the 17th century (JONES, Matthew L. *The good life in the scientific revolution:* Descartes, Pascal, Leibniz, and the cultivation of virtue. Chicago: University of Chicago Press, 2006; VAN DAMME, S. Méditations mathématiques, Retour sur une pratique morale des sciences à l'âge classique. *Annales. Histoire, Sciences Sociales*, Paris, ano 67, n. 1, p. 135-152, 2012).

⁷ Commentaries on philosophical texts, for instance, could be practiced as spiritual exercises, as could the practice of writing down the philosophical doctrines of one's chosen school; cf. HADOT, 1993, p. 17.

of much of our unhappiness⁸. Above all, it entails controlling our inner discourse. We are constantly carrying out a dialogue with ourselves, by means of that inner speech (*endiathetos logos*) that differs from intersubjective speech, the *prophorikos logos*, only in that the latter is pronounced while the former remains silent. For a Stoic like Marcus Aurelius, the goal of philosophy was to discipline one's inner discourse, just as rhetoric was the art of disciplining or setting in order one's external discourse. Instead of allowing oneself to be buffetted by chaotic waves of incoming thoughts over which one had no control, one was to train and discipline them, following the Stoic dictum that it is not things that cause us pain, but our reactions to those things, reactions that are, to a large extent, under our control. For Marcus, there were in fact three disciplines we have to exercise: the discipline of thought, the discipline of desire, and the discipline of action.

1.2. Marcus Aurelius and the Stoic triple discipline⁹

Traditionally, Stoic philosophy was divided into three parts: logic, physics, and ethics. The study of these fields as theoretical disciplines was essential, and the Stoics devoted many technical treatises to them. Yet this was not all there was to philosophy: the three theoretical disciplines of logic, physics and ethics also had a practical side, which represented the application, concretization, or actualization of the theoretical aspects. Whereas the theoretical aspect of these three disciplines corresponds to discourse *about* philosophy; thus, Hadot can speak of a lived logic, a lived physics and a lived ethics¹⁰, and it is within these lived aspects of philosophy that spiritual exercises have their place.

As an example of the way Hadot conceived of the function of discourse in ancient philosophy, let's look briefly at the practical, lived side of the Stoic triple discipline.

⁸ Cf. SHARPE, Matthew. Philosophy and the View from Above in Alejandro's Amenabar's Agora. *Crossroads*, Santa Lucia, v. 6, n. 1, p. 31-45, 2012.

⁹ For what follows, cf. HADOT, Pierre. *The Inner Citadel:* introduction to the Meditations of Marcus Aurelius. Translated by Michael Chase. Cambridge, MA: Harvard University Press, 1998.

¹⁰ Only discourse *about* philosophy is divided into three, while philosophy itself, for the Stoics, is a unique act; cf. HADOT, 1993, p. 26.

In the discipline of thought, associated with logic, we make sure, insofar as is possible, that we see things objectively, withholding our consent from what is false or dubious. For instance, if we see something that initially seems to us to be frightening, disgusting or even excessively attractive, we are to try to separate out what our passions contribute to these impressions. We can thus hope to achieve a view of things that is more objective: at the ideal limit, the Stoic sage could look at the tusks of a charging boar and feel the same aesthetic pleasure as if he were seeing them in a painting, because he has freed his perception from the distorting effects of fear or desire.

The discipline of action corresponds to the practical aspect or actualization of the theory of ethics. Instead of theorizing about virtue and vice, we now accomplish our duties and act for the good of the human community.

Finally, the discipline of desire corresponds to the lived practice of physics. We are to remind ourselves that we are part of the universe, which is ruled by a rational law that is consubstantial with our own reason, and that we must discipline our will so that we not only accept but lovingly desire what happens as a consequence of that rational law.

As Hadot's widow Ilsetraut Hadot has recently written¹¹,

Living according to reason means renouncing one's personal viewpoint and egoistic interests, so as to submit them to the common rules of logic in order to think correctly, to the common rules of social life in order to act correctly, to the common laws of nature to consent to the will of universal reason. There is no trace of egoism in these maneuvers, but, on the contrary, a transcendence of the ego.

What is crucial here, I think, is the change in our perspective: from the limited, particular, individual viewpoint we usually have on the world, which makes us feel that it revolves around us, we are to shift to a perspective in which we feel that we are a part of a larger whole, or rather several larger wholes: reason (corresponding to logic), the human race (corresponding to ethics), and the universe as a whole. This last element,

¹¹ HADOT, I. *Sénèque:* Direction spirituelle et pratique de la philosophie. Paris: Vrin, 2014. (Philosophie du présent). Cf. p. 189.

achieved by the spiritual exercise of lived physics, was what Hadot referred to as cosmic consciousness. He defined it as follows: "the consciousness that we are a part of the cosmos, and the consequent dilation of our self throughout the infinity of universal nature"¹².

1.3 Forms of life and forms of discourse

In ancient philosophy, there is a seemingly paradoxical relation between the philosophical life and philosophical discourse: indeed, according to Hadot these two aspects are "simultaneously incommensurable and inseparable"¹³. They are incommensurable, in that it is the apprentice philosopher's choice of a way of life that initially determines his discourse, not vice versa, and there are many aspects of philosophy that exceed the expressive capacities of language: Hadot mentions the Platonic theory of love and the Plotinian experience of mystical union, among other examples. At the same time, however, discourse remains inseparable from the philosophical life, in that it justifies the choice of life, allows the philosopher to carry out actions on himself and others, and, as dialogue with oneself or with others, constitutes one of the main forms of the philosophical way of life¹⁴.

There was thus a relation of reciprocal causality between the basic choice of life or existential option that led one to join a particular philosophical school, and the theoretical discourse one employed¹⁵.

¹² HADOT, 1995, p. 266. It was, in part, because he failed to see that spiritual exericizes are practiced in all three areas of lived philosophy – not only ethics, but also logic and especially physics – that Pierre Hadot criticized the interpretation of ancient philosophy given by Michael Foucault. Foucault's concentration on the ethical exercises, those relating to what he called the care of the self, caused him to neglect the exercises of lived physics by which one could achieve what Hadot called cosmic consciousness: the lived awareness of one's place and role as part of the universal Whole. Cf. DAVIDSON, 1995, p. 24.

¹³ HADOT. What is ancient philosophy? Cambridge: Belknap Press, 2004, p. 172. For what follows, see the clear discussion in FISHER, Cass. Contemplative nation: a philosophical account of Jewish theological language Stanford: Stanford University Press, 2012. Cf. p. 85 et seq.

¹⁴ HADOT, 2004, p. 175.

¹⁵ On this reciprocal causality, cf. Ibid., p. 174-175, and cf. AUBRY, Gwenaëlle. Philosophy as a way of life and anti-philosophy. In: CHASE; CLARK; McGHEE, 2013, cap. 12, p. 215.

Theoretical discourse emanates from and expresses the philosopher's initial choice of a way of life – the Stoic or Epicurean way of life, for instance –, and it also allows one to justify that way of life and communicate it to others. Through meditation, memorization, and writing out the school's discourse, formulated in a particularly striking and memorable way, the disciple then uses this discourse to set his own inner discourse in order¹⁶.

The philosopher cannot do without external discourse, which is an essential part of philosophy as a way of life. Yet there is an important difference between discourse as addressed to a disciple or to oneself, which is "actually a spiritual exercise", and discourse considered abstractly in its formal structure. It is the latter, Hadot argues, that is the object of most studies of the history of philosophy. Yet "in the eyes of the ancient philosophers, if one contents oneself with this discourse, one is not doing philosophy"¹⁷.

While theoretical discourse is indispensable, then, it is not what is most fundamental. What remains most essential is the non-discursive choice of life or will to live in a specific way. In this sense, the theoretical discourse – the metaphysical, epistemological and ethical doctrines expounded by each school – was a secondary phenomenon¹⁸.

Part of Hadot's radical critique of contemporary philosophy, as taught in the Universities today, is that it has completely neglected the lived, practical side of philosophy, as though philosophy could be reduced to mere discourse *about* philosophy. In so doing, it has succumbed to what Hadot has called the perpetual temptation to be satisfied with philosophical discourse¹⁹.

¹⁶ HADOT, 1993, p. 27-28.

¹⁷ HADOT. Unpublished presentation to the Collège International de Philosophie, quoted by DAVIDSON, 1995, p. 26.

¹⁸ Cf. HADOT, 2004, p. 3: "Philosophical discourse [...] originates in a choice of life and an existential option, – not vice versa". It has been argued (FLYNN, T. Philosophy as a way of life: Foucault and Hadot. *Philosophy & Social Criticism*, Boston, v. 31, p. 609-622, 2005) that this ephiphenomenal nature of philosophical systems – the fact that philosophical choice is primary – reduces the role of reflective critical and selfcritical inquiry in Hadot's thought. But this is to ignore the role of reciprocal causality between philosophical discourse and philosophical choice.

¹⁹ HADOT, op. cit., p. 279-280. Yet Hadot immediately adds that the worst danger is to believe one can *do without* philosophical reflection.

1.4. The role of spiritual exercizes

Ancient philosophers, at least from the Hellenisic period on, did not think one could simply resolve to practice these three disciplines and then change one's life. Just as an athlete must spend many hours in the gym practicing exercises to strengthen her body, so would-be philosophers must have recourse to spiritual exercises to enable them to practice this triple discipline, not just once or twice, but constantly, and throughout their lifetime. The ancients were well aware – perhaps more so than we are – that it is not enough merely to have read or heard about a philosophical doctrine – for instance, the Stoic doctrine that the only evil is moral evil – and accepted it as true. If one wants to be able to have such a doctrine immediately available, so that one can quickly and reliably apply it to the sudden demands of life situations, one needs to meditate on it, assimilate it, digest it, make it a part of oneself. This exercise of meditation on a *kanon*, or rule of life, was one of what Hadot calls "spiritual exercises".

Once again, the main goal of these spiritual exercises was to change our perspective from an individual to a universal viewpoint, or in Hadot's words "to switch from a 'human' vision of reality, in which our values depend on our passions, to a 'natural' vision of things, which replaces each event within the perspective of universal nature"²⁰.

Hadot has described in detail these spiritual exercizes, which could include research, listening, attention, self-mastery, indifference to indifferent things, reading, meditation, therapies of the passions, inner detachment from persons and things, remembrance of good things, accomplishing duties, and the examination of one's conscience²¹. A specifically Stoic technique was that of physical definition, in which one breaks down a thing or event into its component parts, circumscribing them and giving each a name²². Closely linked to this exercize was the technique of living in the present, concentrating intensely on each moment in the knowledge that unlike the past or the future, which are out of our control,

²⁰ HADOT, 1995, p. 83.

²¹ For parallels to these exercises in Indian thought, see GANERI, Jonardon. A Return to the Self: Indians and Greeks on Life as Art and Philosophical Therapy. In: CARLISLE, C; GANERI, J. (Ed.). *Philosophy as Therapeia*. Cambridge: Cambridge University Press, 2010. p. 119-136. Cf. p. 124.

²² As recent studies have shown, this technique can be effective at reducing anxiety.

the present is the only thing that really depends on us. An Epicurean would therefore concentrate on the infinite pleasure and happiness that can be derived from each instant, a pleasure that cannot be increased by duration, while a Stoic would scrutinize his moral intentions at each instant, making sure that he is giving his assent only to objective representations, that he is acting in the service of the human community, and that he is consenting to the will of the rational cosmos, situating himself within the perspective of the Whole²³. By concentrating on the present, as Hadot wrote in his last published work, "consciousness, far from shrinking, raises itself to a higher viewpoint, from which one sees, in a way, the past and the future in the present, and it opens up to the infinity and eternity of being"²⁴.

Another important spiritual exercise is the one Hadot calls the "Look from above". It consists in imagining oneself flying high above the ground and looking down at one's life, the people and things within it, and the circumstances surrounding it. The Ancients believed this would allow us to "put things back into perspective", as the phrase goes: when we look at our life from far above, the problems and obstacles that threaten it seem to lose the character of all-consuming importance they often seem to us to have. Compared to the vastness of the earth, and even more so, to the immensity of cosmic space and the time during which it has existed, our problems really don't seem to amount to much. When seen from far above, for instance, the tiny portions of land over which wars are fought seem ridiculous. This exercise of practical physics, in which one soars through space and time in one's imagination, to explore the vastness of the universe, could lead to what the ancients called "greatness of soul" (Greek megalopsykhia, Latin magnanimitas), a quality which consisted precisely in downplaying the importance of our individual self in the overall economy of the universe²⁵.

²³ HADOT, 1995, p. 84 citing MARCUS AURELIUS. Meditations, 7, 54.

²⁴ HADOT, P. N'oublie pas de vivre: Goethe et la tradition des exercices spirituels. Paris: Albin Michel, 2008, p. 79.

²⁵ PLATO. *Republic*, 486a, cited by HADOT, 1995, p. 97: "[...] that soul to which pertain greatness of thought and the contemplation of the totality of time and being, do you think that it can consider human life to be a matter of great importance? Hence such a man will not suppose death to be terrible". Similarly, the cosmology of Plato's *Timaeus* could produce greatness of soul and cosmic consciousness in its readers. For Marcus

1.5. Boethius and the Look from Above

The notion of the Look from above recurs down to the end of Greco-Roman Antiquity, when Boethius, in his Consolation of Philosophy V, 6, describes God as ensconced high above reality, looking down upon earthly things and events from a kind of watchtower or mountaintop (porro a rebus infimis constituta quasi ab excelso rerum cacumine cuncta prospiciat). From his lofty vantage point, God sees all the temporal events in the world's history at once, stretched out like clothespins on a laundry line, or the slices of a sausage or a loaf of bread, or, as Thomas Aquinas explained, like an observer perched high above a road could see all the travellers upon it at the same time. Boethius leaves open the possibility that human beings can accede to a state very close to this God's eye view of reality. It may be possible for human beings to raise themselves, though the practice of philosophy, to a level where they see the world in a way similar to the way God sees reality²⁶: a world foreign to the distinction between past, present and future. In turn, this God's-eye view from above²⁷, which human beings may be able to imitate, is very much like the view espoused by many exponents of contemporary physics²⁸. If the narrator of the Consolation, who is initially wallowing in self-pity and convinced the world is unjust because he has been treated unfairly, could raise himself up to this God's eve-view, he would see that the world is indeed ruled by Providence, and is ultimately just. As in Hadot's description of the spiritual exercise of the Look from Above, this shift in perspective away from his limited, isolated, individual viewpoint allows the Narrator to become aware of his place within the

Aurelius, greatness of soul can be defined as looking at things in the same way Nature looks at them, viz. with a benevolence that makes no distinctions or value judgments between them. Cf. HADOT. *Exercices spirituels et philosophie antique*. Nouvelle édition revue et augmentée. Paris: Albin Michel, 2002, p. 164.

²⁶ Cf. HADOT, 1995, p. 130 on the function of attention (*prosokhe*) in early Christian philosophy): "The 'attentive' person [...] sees all things with the eyes of God himself".

²⁷ Cf. MARCUS AURELIUS. *Meditations*, 7, 48: ἐπισκοπεῖν [δεῖ] καὶ τὰ ἐπίγεια ὥσπερ ποθὲν ἄνωθεν κάτω. ("One must look down upon earthly things as if downwards from somewhere above").

²⁸ Cf., among many possible examples, D'ESPAGNAT, Bernard. *In Search of reality*. New York: Springer Verlag, 1983, p. 161: "the fact of the passing of time, which to us is quite familiar and which we tend almost unavoidably to consider as a basic reality, becomes [...] a relative one that refers to the phenomena and not to reality itself".

cosmos, and his role in the network of relations that constitute it.

One concern that weighs down upon us – sometimes to the point that it overwhelms every other consideration, stripping everything else of its importance and making it seem derisive – is the prospect of our own death. If our ego, our individual self, seems to us to be all that matters, then its obliteration in death is an unthinkable, scandalous catastrophe. But as Hadot has pointed out, Plato defined philosophy as an "exercise or training to die" (*meletê thanatou*). In Platonism, the death in question is a death to the body²⁹, or the separation of the soul from the body: in other words, the goal of this training for death is to render our self-centered passions subordinate to the universal laws of reason. Hadot thus interprets the Platonic appeal to "train for death" (*meletê thanatou*) as a call to die "to one's individuality and passions, in order to look at things from the perspective of universality and objectivity" ³⁰. Meditation on death is closely linked to the exercise of living in the present: thanks to it, we can try to live each moment as if it were both our first and our last³¹.

Finally, another way to formulate the goal of spiritual exercizes is to describe it as a return to the self. Yet the self in question is not only our egoistic, passionate, individualistic self: the return to this self is merely a preliminary stage, corresponding to the Platonic advice to "Know thyself". The ultimate goal is to identify with a transcendental self that, paradoxically, is both our self and something higher than our self : "it is our moral person, open to universality and objectivity, and participating in universal nature or thought"³².

It is thanks to such spiritual exercizes as the look from above,

²⁹ PLATO. *Phaedo*, 67c: "Shall we not say that purification occurs [...] when man separates the soul as much as possible from the body, and accustoms it to gather itself together from every part of the body and concentrate itself until it is completely independent, and to have its dwelling, so far as it can, both now and in the future, alone and by itself, freed from the shackles of the body?"

³⁰ HADOT, 1995, p. 95. Hadot also formulates this goal of philosophical separation as "shedding the pasions linked to the corporeal senses, so as to attain to the autonomy of thought" (ibid., p. 94), or to "the exercise of pure thought" (ibid., p. 97). On the importance of the pernicious effects of the passions, defined as "unregulated desires and exaggerated fears", cf. Ibid., p. 83.

³¹ Ibid., p. 96.

³² Ibid., p. 103.

and more generally those that relate to the practice of lived physics – as opposed to mere discourse *about* physics – which help us to resituate ourselves as parts of the universe, acquiring or regaining what Hadot calls "cosmic consciousness", that we can relativize our own importance. The isolated self of our everyday consciousness, source of our despair, comes to be seen as an illusion that can be shaken off by means of a change in our way of looking at the world. That world does not, in fact, revolve around us; but we are an integral part of it – in its intellectual, social, and physical aspects – and it will keep on spinning long after we are gone.

Part 2. Borders and intermediary zones 2.1 Pavel Florensky

Pavel Florensky (1882-1937) was an exponent of both the practice of spiritual exercizes and of what I'd like to call interdisciplinarity as a way of life. Florensky was an highly polyvalent and prolific scholar, writing important works in many fields of humanistic studies, including the theory of art, yet he was also a trained mathematician and practicing scientist throughout his life, even after he was shipped to the Gulag under Stalin, prior to his execution in 1937. He was thus a prime example of the practice of interdisciplinarity, and he also seems to have practiced such spiritual exercizes as the look from above and concentration on the present moment. As he wrote to his family from the Gulag, just months before his execution: "Life flies like a dream [...] therefore we must learn the art of living, the most difficult and the most important of arts: that of filling every hour with a substantive content, thinking that that hour will never again return"³³.

Yet Florensky's case is very complex, and I have written about him elsewhere³⁴, so I will limit myself to mentioning him in passing, before

³³ FLORENSKY. Letter from the Solovki Islands to his daughter Natasha, April 20, 1937. In: ______. Non dimenticatemi: Le lettere dal gulag del grande matematico, filosofo sacerdote ruso. A cura di N. Valentini e L. Zak. Milan: Mondadori, 2006, p. 397. In the same batch of letters, Florensky announces to his mother that he is "trying to found a new mathematical discipline, which I have called morphometry, that is, the measure of form". He did not have time to develop this discipline, since he was executed a few months later.

³⁴ CHASE, M. Pavel Florensky on Space and Time. ΣΧΟΛΗ, Ancient Philosophy and the Classical Tradition, Novosibirsk, v. 9, n. 1, p. 105-118, 2015.

going on to discuss the views of a figure whom Florensky admired and with whom he corresponded³⁵: the Russian mineralogist and geochemist Vladimir Vernadsky (1863-1945).

2.2 Vladimir Vernadsky, Edward Said and Silvano Tagliagambe on intermediary zones

Perhaps the most important property of a cell, the most basic subsystem of life, is that it features a membrane that is both a barrier against the outside world and a means of communciation with it. This limit or border enables the cell to maintain its integrity and identity, while keeping potential enemies at bay; yet it also enables it to receive nourishment from outside and expel waste from its vicinity. Vernadsky extended this notion of the importance of borders not only to all living beings as such, but also to systems of knowledge such as science. In this respect, cells, living beings, the biosphere, and science are all analogous, in some of their defining features, to self-organizing systems³⁶.

As the epistemologist Silvano Tagliagambe has written, discussing the interaction between objects as they are in reality and objects as we know and perceive them,

it is through the border and thanks to the activity of translation explained by it that what is external to the system can become internal, and the domains placed in communication cease to appear separate and heterogeneous, achieving a level of homogeneity that makes one forget their differences. The border, understood as a mechanism of translation [...] activates the identity between real object and object of knowledge [...] on the other hand, this same border, now understood as a line of demarcation, safeguards the difference and the alterity with respect to the system of what comes from outside.

³⁵ With astonishing foresight, Florensky wrote to Vernadsky on November 21, 1929 that chemistry and physics "will necessarily have to be restructured, transforming themselves into biochemistry and biophysics" (химия и физика будут перестроены, как биохимия и биофизика). The letter is available online at ">http://www.nffedorov.ru/wiki>.

³⁶ In this section I am indebted to TAGLIAGAMBE, Silvano. *Il cielo incarnato:* Epistemologia del simbolo di Pavel Florenskij. Roma: Aracne, 2013. (Filosofia della scienza, 6). Cf. p. 58. On the cell as an autopoietic system with a permeable but selective boundary, cf. THOMPSON, Evan. *Waking dreaming being:* Self and consciousness in neuroscience, meditation, and philosophy. New York: Columbia University Press, 2015. 326f.

What becomes crucial in this context is the notion of the intermediary space – in Russian, *skachok* – between two different and even opposing domains. This intermediary space is a zone of communciation, in which processes of hybridization between two initially opposed domains may take place. Such hybridization is the condition for the appearance of new "intermediary spaces" between these domains, initially considered as too different to have anything in common.

This notion of the importance of intermediary spaces reminds one, in a completely different context, of the last work of Edward Said, *Humanism and democratic criticism* (2004). Here, Said insists on the need for the humanist scholar to create a critical distance, both from his own cultural horizon and from the works he studies. Already in his major work *Orientalism* (1978), Said had written that

> the more one is able to leave one's cultural home, the more easily is one able to judge it, and the whole world as well, with the spiritual detachment and generosity necessary for true vision. The more easily, too, does one assess oneself and alien cultures with the same combination of intimacy and distance³⁷.

Here again, what is crucial is the change in viewpoint or perspective that is necessary for a more detached, objective view on things. As Orazio Irrera has pointed out, the achievement of such detachment was, in the view of the later Said, a kind of spiritual exercize, consisting in "an effort to separate and detach oneself from one's own set of values in order to open up new paths"³⁸. Irrera goes on to speak of "the asceticism the philologist must apply in order to distance himself from his own affiliations and be able to reach a deeper understanding of the texts he is working on, but above all to entirely transform his way of seeing the world and himself".

As a result of this spiritual exercise of detachment, then, the Saidian humanist can create a kind of intermediary zone in which new juxtapositions between cultures can take place.

³⁷ SAID, Edward Said. Orientalism. New York: Pantheon, 1978. p. 260.

³⁸ IRRERA, Orazio. Edward Said's Humanism Ethical and Political Challenges in Translation. *Transeuropéennes: Revue internationale de Pensee critique*, Paris, 2009. Available at: http://www.transeuropeennes.eu/en/articles/94/L_humanisme_selon_Edward_sa_d.

In the context of discussing cases of multistable perception, that is, ambiguous images of which the mind can give different successive interpretations, Silvano Tagliagambe writes as follows:

This process of "hybridization" makes such "images" [...] something unstable by virtue of the tension that emanates between the aspects placed together [componere] without, however, ending up fused into a "synthesis" capable of overcoming them and transcending both. And it is precisely this instability that "sets in motion" the psychic structure that perceives the images in question, triggering in it an evolutive development that critically revisits and places in discussion at least a part of the contents housed within them, anticipating possible alternatives with regard to them, that is, other viewpoints, other ways of seeing, and hence activating and implementing a creative capacity³⁹.

In the case of ambiguous images that can be interpreted in ways that are mutually exclusive, it is the very difference between viewpoints being compared and contrasted that triggers critical reassessment, openness to new alternatives, and creativity. Similarly, like the look from above in ancient philosophy, the comparison of two seemingly very different phenomena or areas of study can result in a shift in perspective that opens one up to other viewpoints, other ways of seeing.

For Tagliagambe, the point of carrying out a comparison between two different domains – disciplines, historical periods, philosophical or scientific doctrines – is not to force upon them, in a Procrustean way, an identity they do not possess. It is more a matter of analogies, "by virtue of which objects, albeit dissimilar, are nevertheless in agreement with regard to certain relations between their respective parts"⁴⁰. When comparing two different domains in this way, each one must be kept sufficiently different, or irreducible one to another, so as to allow for influxes of novelty, yet they cannot be so different as to become incommensurable, thereby ruling out any possibility of communication between them⁴¹. Each of the two domains must constitute systems that are at the same time "open", in that they are connected to others, and yet "closed", insofar

³⁹ TAGLIAGAMBE, 2013, p. 79.

⁴⁰ Ibid., p. 78.

⁴¹ Ibid., p. 91.

as they are autonomous and able to maintain their characteristic internal organization⁴².

Tagliagambe goes on to speak of

the cases, ever more frequent in current scientific practice, in which we find ourselves faced by an interaction that places in relation concepts and methods belonging to different fields of knowledge and research. This correlation, essential to the description of many problems, does not leave the two domains involved unchanged. By virtue of this, these fields come to partially overlap, giving rise to the constitution of a new object of knowledge, which are often at the origin of completely unexpected developments and results.

Tagliagambe concludes, following Vernadsky, that as a result of this viewpoint, the rigid hierarchies between disciplines disappear, and "a new form of egalitarian collaboration and cooperation is established, in the context of which the humanistic disciplines and philosophy interact closely with the traditional sciences and acquire an increasingly important role"⁴³.

2.3 Conclusion: Philosophy and science

Early in the twentieth century, Vernadsky, the eminent scientist, warned that any philosophy that ignores science runs the risk of becoming irrelevant and outmoded. This must not mean, however, that philosophy should blindly follow science.

Indeed, if philosophy limits itself to proceeding blindly in the footsteps of scientific tendencies, it will obviously be guided by them and will soon lose all autonomous and effective significance and value, and hence all interest for human knowledge: its work, and its participation in the process of the creative elaboration of human thought will soon be reduced to zero⁴⁴.

If humanistic thought chooses to slavishly follow a specific scientific tendency, it risks becoming as irrelevant as if it had ignored science altogether.

⁴² TAGLIAGAMBE, 2013, p. 172.

⁴³ Ibid., p. 65.

⁴⁴ VERNADKSY. *Filosofskie mysli naturalista*. Moskva: Nauka, 1988, p. 416-418, cited by TAGLIAGAMBE, op. cit., p. 66.

For this purpose it is enough to recall the very recent history of the so-called scientific philosophy and the various orientations of positivism. The positions it adopted today appear in the eyes of a contemporary scientist as nothing more than old fables, good for old wives' tales⁴⁵.

The way that philosophy can complement science, then, is by its intrinsic multifariousness. Rather than possessing the truth as its exclusive property, philosophy, as Vernadsky writes⁴⁶, is "something complex, polyhedric, and polyvalent". This variety of approaches makes philosophy apt to create a number of intermediary zones, in which, through the process of hybridization described by Tagliagambe, phenomena initially considered to be completely heterogenous may, when brought into proximity, shed light upon one another in unexpected ways.

What we might call "interdisciplinarity as a way of life" can thus fulfill a function analogous to that of the spiritual exercises in which, according to Pierre Hadot, ancient philosophy consisted: it can, perhaps, help to bring about a shift in perspective, a detachment from our usual self-centered, isolated, individualistic way of viewing things, according to which the world revolves around us. According to Pierre Hadot, ancient spiritual exercizes in general, and the View from Above in particular, can help us to detach our view from our own particular circumstances and accede to a more universal viewpoint, in which we realize that we are a part of several concentric larger wholes, culminating in the whole consitituted by the entire cosmos. An analogous shift in perspective can be achieved by the kind of comparative interdisciplinarity advocated by Tagliagambe, following Vernadksy and Florensky, according to which a fruitful hybridization can take place in the intermediary zone betwen two initially different domains of reality. Finally, yet another form of the shift of perspective can be brought about by the kind of humanism advocated in the late work of Edward Said, for whom the detachment from one's own cultural context, like the relativization of one's own problems brought about by the View from Above, can be considered a spiritual exercise necessary for achieving a more universal and objective perspective. Such a

⁴⁵ VERNADKSY, 1988 apud TAGLIAGAMBE, 2013, p. 66.

⁴⁶ Ibid., p. 313.

new perspective, in turn, can render us more open to encounters with the Other, which in turn can foster further creative innovation.

Each in its own way, these methods, and many others like them, can, I suggest, contribute to realizing the goal Pierre Hadot attributed to what he called the spiritual exercises of ancient philosophy: they can help us change the way we view the world, reducing our self-centeredness and therefore enabling us to perceive and exist in a more intense and better way.

RESUMO

Sugiro que a prática da interdisciplinaridade, compreendida adequadamente, pode ter um papel semelhante ao dos exercícios espirituais da antiguidade na revitalização da filosofia hoje. Começando com uma análise da visão de Pierre Hadot em torno da Filosofia Antiga como consistindo principalmente numa série de exercícios espirituais visando a transformar nosso modo de ver o mundo, e portanto nosso modo de ser, eu argumento que o objetivo de tais exercícios era o de nos habilitar a mudar de uma perspectiva individualista para uma universal, assim como na Consolação da Filosofia de Boécio, onde o filósofo é encorajado a se empenhar por uma perspectiva com o olho de Deus, para o qual passado, presente e futuro são simultâneos. Então eu comparo essas noções antigas com noções correspondentes modernas, no pensamento de Pavel Florensky, Vladimir Vernadsky, Edward Said e Silvio Tagliagambe, que ensinam, cada um à sua própria maneira, que a comparação de várias épocas, culturas e campos de estudo podem levar a uma mudança de perspectiva análoga àquela atingida por meio dos exercícios espirituais.

Palavras-chave: Pierre Hadot. Exercícios espirituais. Filosofia Antiga. Boécio. Pavel Florensky. Vladimir Vernadsky. Edward Said. Filosofia da Ciência. Interdisciplinaridade.

ABSTRACT

I suggest that the practice of interdisciplinarity, properly understood, can play a role similar to that of the spiritual exercises of antiquity in the revitalization of philosophy today. Beginning with an account of Pierre Hadot's view of ancient philosophy as consisting primarily in a series of spiritual exercises intended to transform our mode of seeing the world, and hence our mode of being, I argue that the goal of such exercises was to enable us to shift from an individualistic to a universal perspective, as in Boethius' *Consolation of philosophy*, where the philosopher is encouraged to strive for a God's-eye-view to which past, present and future are simultaneous. I then compare these ancient notions with modern counterparts in the thought of Pavel Florensky, Vladimir Vernadsky, Edward Said and Silvio Tagliagambe, who teach, each in his own way, that the comparison of various epochs, cultures and fields of study can lead to a shift in perspective analogous to that achieved by ancient spiritual exercises.

Keywords: Pierre Hadot. Spiritual exercises. Ancient Philosophy. Boethius. Pavel Florensky. Vladimir Vernadsky. Edward Said. Philosophy of Science. Interdisciplinarity.